

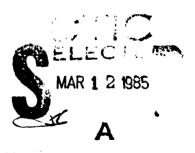
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SOVIET NAVY DATA BASE: 1982-83

James John Tritten

April 1983



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This unclassified data base was developed by the author (a Rand Consultant) during his PhD studies at the University of Southern California's Defense and Strategic Studies Program. The data base and its associated methodology will be a part of his doctoral dissertation. It was initially developed during a course on Naval Strategy for the School of International Relations. It is being issued as a Rand Paper in the expectation that it will serve as the foundation for similar naval assessments and research at Rand. Opinions or assertions contained herein are those of the author and are not to be construed as official or reflecting the views of the Department of the Navy.

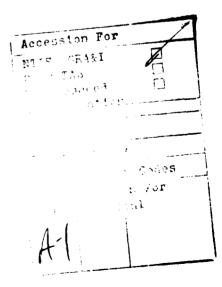
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GLOSSARY

Active Long Range Maritime Forces All active strike submarines, surface strike and surface ASW vessels, surface escorts, mine warfare ships in excess of 1000 tons, amphibious LPD/LSTs, and long range aircraft. See individual categories for definitions. Generally refers to units capable of distant water operations.

Active Theater
Maritime Forces

Hotel II and Golf II ballistic missile submarines, attack submarines, surface units, patrol combatants, mine warfare ships from 100-1000 tons, amphibious LSM, and theater aircraft. See individual categories for definitions. Generally refers to units likely to operate under protective umbrella of land based aviation.

ACW

Anti-carrier warfare.

Amphibious Forces

Ships having the organic capability to carry troops (number in parentheses) and equipment. Does not include Soviet Merchant Marine Assets which are not under routine control of Navy but could significantly increase distant water operations in a more benign environment.

ASW

Anti-submarine warfare.

Attack Submarines

Active SS and SSC of K, Q, R, W, Z classes not assigned training roles (active theater maritime forces).

AXT

Training ship. Counted as auxiliary warship. Certain of these units are well armed and could be a valuable wartime asset. Where armament is significant, counted in misc. surface forces.

AXT/MM

A Yugoslavian ship primarily operated as a training ship but credited with a possible minelaying role in war.

Blk-COM 1

A NATO designation used to give a provisional name to a combatant being built in the Black Sea. In this case, the unit has been identified as a cruiser.

CG

Missile cruiser. Principal surface combatant with extensive command and control capability and armament. Armed with surface-to-surface missiles whose range exceeds 60 n mi, or ASW missiles whose range exceeds 20 n mi, or surface-

to-air missiles whose range exceeds 10 n mi. Udaloy and Sovremennyy class major DDGs meet this test and are larger than Kynda class cruisers.

CG/CL

Used herein to designate Sverdlov class cruiser. Only one has surface-to-air missiles while a few have been extensively modified for command and control and had previously been termed CC instead of the present CL.

CGN

Nuclear powered cruiser. See CG.

CHG

Aviation cruiser. Carries at least 4 helicopters. See CG.

CL

Light cruiser. Similar to CG but lacks missiles. Has multiple-barrel main gun batteries of 100-180-mm bore.

Coastal Combatants

Naval units classed between patrol combatants and river/roadstead craft. Generally lack endurance for operations outside inshore waters and between 100-400 metric tons displacement. Includes PCF, PCS, PCSH, PT, PTG, PTCH, PTH (miscellaneous forces).

CVHG

V/STOL aircraft carrier. Capable of operating at least 4 vertical/short field take off and landing (V/STOL) aircraft. Armed with surface-to-surface missiles whose range exceeds 60 n mi, or A'W missiles whose range exceeds 20 n mi, or surface-to-air missiles whose range exceeds 10 n mi.

DD

Destroyer. A general purpose surface warship capable of independent open ocean operations. Classed between cruisers and frigates. Functions primarily as an escort or in shore bombardment.

DDG

Missile destroyer. See DD. See CG for criteria to be considered missile equipped.

FF

Frigate. Open ocean combatant classed between destroyers and corvettes. Generally not multi-purpose although can act as such but lack capability of a destroyer. At least 1500 metric tons displacement and capable of >20 kts sustained speed.

FFG

Missile frigate. See FF. See CG for criteria to be considered missile equipped.

FFI.

Corvette. Open ocean combatant classed between frigates and patrol combatants. Generally lack multi-purpose capability. Fall between 900-1500 metric tons displacement and capable of >20 kts sustained speed.

FF/MM

Refers to Finland frigate of Soviet Riga class modified to perform as minelayer.

FFT

Training frigate. See FF. Refers to Iraq Ibn Khaldum.

KGB Forces

Naval-type combatants operated by the Frontier Forces of the KGB. Such vessels fly a distinct Naval Ensign and are not properly counted as being in the Navy. Some are corvette sized but most are patrol or coastal combatants. Units in this force have a W preceeding naval ship class designation. Includes WFF, WFF', WPCS, and WPGF (miscellaneous forces).

Long-Range Aircraft Backfire bombers and Bear F MPA/ASW fixed wing aircraft (long range maritime forces).

LPD

Amphibious assault transport dock. Major long range, deep water ship capable of launching assault vehicles via wet well. Helicopter capable. Soviet Ivan Rogov class.

LSM

Medium amphibious assault landing ship. Capable of extended open ocean operation but primarily expected to be used in theater role. <600 metric tons cargo.

LST

Amphibious vehicle landing ship. Capable of extended open ocean operation. >600 metric tons cargo.

Major DDG

Sovremennyy and Udaloy classes. Armament meets criteria of being a CG. Ships are larger than Kynda class cruisers. Jane's classifies as CG.

MCS

Mine countermeasures support ship. Provides command, control, and communications, support for other mine countermeasures ships. Probably has minelaying capability. Soviet Alesha class of 2,630 metric tons (frigate sized).

Miscellaneous Forces R&D ballistic missile submarines, reserve attack submarines, miscellaneous submarines, miscellaneous surface forces not elsewhere classifiable, coastal combatants, reserve surface, and KGB forces. See individual categories for definitions.

Miscellaneous Submarines Y SSBN undergoing conversion to SSN, all SSA, SSQ, SSR, SST, SSTG (miscellaneous forces).

Misc. Surface Forces

Armed AXT and PGR (miscellaneous forces).

MM

Minelayer.

MM/AKR

Minelayer/roll on-roll off cargo ship. Refers to a Libyan 2800 metric ton transport which has been used as a minelayer.

MPA

Maritime patrol aircraft. Fixed wing.

MSC

Coastal minesweeper. Normally between 250-500 metric tons. Probably capable of patrol duties and minelaying.

MSF

Fleet minesweeper. Open ocean capability. Might have ASW and patrol capability. Probably capable of minelaying. Generally >500 metric tons.

NSWTO

Non-Soviet Warsaw Treaty Organization Nations.

Patrol Combatants

A combatant classed between larger corvettes (FFL) and smaller coastal combatants. Intended for coastal defense but beyond inshore waters. Generally <20 kts sustained speed and between 400-900 metric tons displacement. Includes PG, PGF, PGG, PGGH (active theater maritime forces).

PCF

Fast patrol craft. Coastal combatant with sustained speeds >24 kts.

PCS

Submarine chaser. Coastal combatant oriented to ASW.

PCSH

Hydrofoil submarine chaser. See PCS.

PG

Patrol combatant. Main gun at least 76-mm.

PGF

Patrol ship. Gun armed patrol combatant with

<20 kt sustained speed.

PGG

Missile patrol combatant. See PG. Armed with some type missile of any range.

PGGH

Hydrofoil missile patrol combatant. See PG and

PGG.

PGR	Reconnaissance patrol combatant. Miscellaneous naval surface ship fitted with early warning radar. Generally these are converted T-43 and T-58 MSF.
PT	Torpedo boat. Coastal combatant. May have limited ASW capability.
PTG	Missile torpedo boat. Coastal combatant equipped with antiship missiles vice torpedoes.
PTGH	Hydrofoil missile torpedo boat. See PTG.
PTH	Hydrofoil torpedo boat. See PT.
R&D Ballistic Missile Subs	Hotel III SSBN, Golf I, III, IV, V class SSB (miscellaneous forces).
Reserve Attack Submarines	Q, W, and Z class SS/SSC assigned to reserve fleet (miscellaneous forces).
Reserve Surface	CG/CL, DD, FF, and MSF assigned to reserve fleet (miscellaneous forces).
SS	Attack or strike submarine. Diesel-electric powered, torpedoes and mines are main armament. Soviet F, K, R, T, W, Z classes.
SSA	Auxiliary submarine. Non-combatant. Soviet I and L classes.
SSB	Ballistic missile submarine. Diesel-electric powered. Soviet G class.
SSBN	Nuclear powered ballistic missile submarine. Soviet D, H, Y, and Typhoon classes.
SSC	Coastal submarine. Short endurance defensive coastal operations. Normally <1400 metric tons submerged displacement. Soviet Q class in reserve fleet.
SSG	Cruise missile submarine. Diesel-electric powered. Soviet J class.
SSGN	Nuclear powered cruise missile submarine. Soviet C, E, O, P classes.
SSM	Surface-to-surface missiles.

Nuclear powered attack or strike submarine. Soviet A, E, N, V classes.

SSN

SSQ Communications submarine. Non-combatant. Soviet

G-I conversions.

SSR Radar picket submarine. Soviet W class modified

to carry early warning radar.

SST Training submarine. Soviet B class used as tar-

get and Q submarines assigned as training units.

SSTG Cruise missile training submarine. Soviet modi-

fied W class.

Strategic Forces Nuclear powered ballistic missile submarines

accountable under SALT I.

Strike Submarines Active SSGN and SSNs (all), J, SSG, F and T SS.

These units are those currently forward deployed or likely to do so in the event of war (long

range maritime forces).

Surface ASW All CHG and those CG and major DDG whose major

weapons systems indicate ASW as the primary

missions (long-range maritime forces).

Surface Escorts All DDG and FFG (long-range maritime forces).

Surface Strike All CVHGs, and CGNs and those CG, CL, major DDG

whose major weapons systems indicate a surface strike role as a primary mission (long range

maritime forces).

Theater Aircraft

Badger and Blinder bombers, Fitter and Forger

Sieles (No. 1) and Mark MPA (ASU Siese)

fighter/bombers, Mail and May MPA/ASW fixed wing aircraft (active theater maritime forces).

Theater Ballistic SSBN, SSBs of Hotel II and Golf II classes

Missile Submarines (active theater maritime forces).

Theater Surface DD, FF, FFL lacking missiles (active theater

maritime forces).

Warship The Soviets claim that any State-owned ship

which flys the Naval Ensign or the flags of the Auxiliary Vessels, Hydrographic Vessels, or Emergency Reserve Vessels of the Soviet Navy are warships or the legal equivalent of warships. Such ships do not need to be painted gray, have

armament, or have an all-military crew.

WFF KGB frigate. See FF.

WFFL KGB Corvette. See FFL.

WPCS KGB submarine chaser. See PCS.

WPGF KGB patrol ship. See PGF.

I. INTRODUCTION

Over the past several years, there has been much discussion in naval literature about the sizes of the United States and Soviet navies. However, naval power is only loosely correlated with overall size of a navy. Other important factors which influence naval power are:

- o Navy composition (the types of ships in the Navy).
- o Fleet assignments (the basic location of ships).
- o Fleet organization (the groupings of ships used).
- o Ship availability (the number of ships in various conditions at any given time).
- o Fleet mobilization potential (this ability to enhance naval availability during war).
- o Fleet logistics (the ability to resupply and maintain naval operations).
- o Ship quality (the qualitative aspects of individual ships).
- o Personnel quality (the degree to which naval personnel are able to effectively use the equipment available to them).

The first five of these issues relate to the way in which the Soviet fleet is postured in peacetime and may be postured in a crisis or war situation. This paper addresses these five issues, identifying likely Soviet naval postures in various ocean areas under various conditions. It thus provides a starting point from which naval warfare modeling can assess the ability of the Soviet Navy to perform its missions throughout the world.

There are many sources of information for defense analysts to obtain descriptions of Soviet naval forces and what fleets these units are assigned to. Many of the standard sources are at odds with each other and therefore the first step one must take is to decide which raw numbers are to be used.

Once this step is done, the analyst is still left with an incomplete data base, i.e., the total numbers of ships assigned to the varying fleets cannot be immediately translated to war fighting forces in the oceanic theaters. Additional aggregation is necessary.

One of the immediate needs is to break down forces into those which can perform major missions such as strategic deterrence, long range maritime operations, theater operations, those which are not well suited to war fighting, and those in the reserves.

From those forces which perform strategic deterrence or long range maritime operations, it is necessary to account for those which are already on forward deployment. From the remaining numbers, some assumptions need to be made as to how many additional units could be surged or mobilized recognizing that not all forces can ever be put to sea.

Similar calculations are required for theater forces. One complicating factor is that some theater forces can be expected to also be forward deployed. On the whole, however, one cannot expect theater forces to be routinely deployed in distant locations should a war occur.

From the total numbers of active fleet assets, it is necessary to discount naval forces which do not have a direct impact on war fighting capability. From the active forces, it is necessary to delete those undergoing conversion and unable to put to sea, and research vessels, or training craft which could at best be a minimal contribution to the fleets capability.

The emphasis is to present the numbers in the naval threat in such a manner as to avoid the perception of inflation. There may be certain times when counting all warships, auxiliaries, and militarily useful merchants, research, or fishing vessels is entirely appropriate, but there is also a need for a data base of serious war fighting combatants.

Reserve forces also need to be accounted for with the understanding that their availability in a "short" war might be minimal at best. As with the active fleet, certain assumptions need to be made with regard to an ability to deploy the reserve fleet within certain time periods.

Finally, there is a need for an aggregation of naval units into war fighting task groups or task units. Although it is necessary to count individual ships, we cannot expect naval engagements to routinely be one ship vs. another single unit. Task groups and units need also be formed so that force engagement models might then be constructed.

For the purposes of this study, an unclassified Soviet navy data base will be constructed for the 1983 year. The methodology will be directly usable for any year and lend itself to substitution of classified numbers at the appropriate time.

The author has selected four major sources from which to draw raw numbers and blend these into his own composite totals. These sources are:

- Jean Labayle Couhat, Ed., <u>Combat Fleets of the World 1982/83</u>, English language edition prepared by A. D. Baker, III, an updated version of <u>Editions Maritimes et d'Outre-Mer</u> (1981).
 Annapolis: Naval Institute Press, 1982 (current thru March 1, 1982).
- 2. Captain John Moore, RN (Ret.), Ed., <u>Jane's Fighting Ships</u>

 1982-83. London: Jane's Publishing Co. Ltd., 1982.

 (Currency varies.)
- 3. International Institute for Strategic Studies, <u>The Military</u> Balance 1982-83, Autumn 1982 (current thru July 1982).
- 4. United States, Defense Intelligence Agency, <u>Unclassified</u>

 <u>Communist Naval Orders of Battle</u>, DDB-1200-124A-82, May

 1982 (current through 1 April 1982).

The study will first describe the static levels of Soviet naval forces assumed, then the assignment into each of the four main fleets. Next, task groups and units will be created. Finally, a data base for all major ocean areas is created using the raw numbers and task groups/units assumed.

The final product is an unclassified data base of Soviet navy major war fighting assets with availability for participation in a conflict/crisis with no strategic/tactical warning given ("bolt from the blue"), where a surge of those units immediately ready for sea is done, or where mobilization and strategic warning is given. From this data base, scenarios may be tested against capability or force engagement modeling may be conducted.

II. TOTAL FORCE LEVELS

This section will deal with the raw numbers of ships in service as reported by the four main sources used. The author has assigned types of forces to major categories of war fighting missions to be performed. Units under construction are excluded.

A glossary is included for the reader not used to naval acronyms or classes. In the tables which follow, only the first letter of the code name for most Soviet submarines is included where in the text, the full name is spelled out (Y stands for Yankee). Parentheses are used in the tables to show aggregated levels of varying classes. Where no number is given, that particular source did not have data broken down in this area. In general, the author tabulated class totals himself rather than use totals found in tables in the original sources since the tables which were provided often did not agree with numbers found in the pictoral sections.

Assumed force levels are the same as those of the four primary sources where the numbers are identical. Where there is disagreement, a rounded average of the four sources was used. Where this rule was not followed, the specific case is cited.

Strategic forces (Table 1) are those first-line nuclear ballistic missile submarines which routinely patrol ocean areas adjacent to the U.S. or deploy in special defended bastion areas (such as the Barents Sea and the Sea of Okhotsk) in which the Soviets protect their SSBNs.

In the category of active long-range maritime forces (Table 2) the author selected deployable nuclear powered submarines, two modern classes of diesel-electric subs and surface ships over 1000 tons displacement. This is generally consistent with the separation of forces used by the Atlantic Council's Working Group on Securing the Seas which published Securing the Seas: The Soviet Naval Challenge and Western Alliance Options in 1979. The author updated this study by assigning older classes to a theater/reserve roll.

The author also shared the Working Group's apparent view that in war, modern surface escort ships with air defense missiles would deploy outside of land based air protection while older units without missiles

were destined for local support of ground forces and command of contiguous waters (theater).

The author separated long-range surface units into those which are primarily oriented toward surface strike or ASW. Under the category of long range forces, the author listed modern deep water amphibious forces.

In the category of active theater forces (Table 3), the author generally tabulated naval forces smaller than 1000 tons displacement or non-missile surface escorts. Generally those units termed "craft" (under 100 tons displacement) are excluded from this study unless noted.

Under the final category of miscellaneous forces (Table 4), the author put reserve, training, research, and other units which are not immediately available for war fighting but often appear in other "threat" tabulations. This includes, for example, 30 active and 108 reserve submarines. It also includes certain naval auxiliaries which are armed and can perform genuine war fighting roles.

The author includes KGB naval forces not assigned to the Soviet navy in this miscellaneous category. It appears DIA excludes KGB forces in most of their order of battle tabulations. The author concurs and considers KGB forces as revenue patrol or coast guard forces which are probably not immediately available for naval battle. Larger units have been listed since they would be available for local defense.

Table 1
STRATEGIC FORCES

	Couhat	Jane's	IISS	DIA	Assumed
SSBN	(63)	(62)	(62)	_	(62)
Typhoon	1	1	1	-	1
DIII	13	13	13	-	13
DII	4	4	4	_	4
D I	18	18	18	_	18
Y II	1	1	1	-	1
Y I	26	25	25	_	25

Table 2

ACTIVE LONG RANGE MARITIME FORCES

	Couhat	Jane's	IISS	DIA	Assumed
Strike Submarines SSGN (all) SSG (J) SSN - (A, E, N, V) SS (F, T)	- 48 16 54 74	- 49 16 58 75	- 49 16 56 75	- - - -	(198) 49 16 56 75
Surface Strike CVHG (Kiev) CGN/CG - (all) - Kirov CGN - Blk-Com l - Kresta I - Kynda CG/CL - Sverdlov DDG - Sovremennyy	- 3 - 1 - 4 4 12 2	3 - 1 1 4 4 11 2	- 2 - 1 1 4 4 7 1	- 2 - 1 - 4 4 10 1	(22) 3 (10) 1 4 4 4 72/ 2
Surface ASW CHG (Moskva) CG - (all) - Kara - Kresta II DDG - Udaloy	- 2 - 7 10 2	- 2 - 7 10 2	- 2 - 7 10 2	- 2 - 7 10 2	(21) 2 (17) 7 10 2
Surface Escorts DDG - (all) - Kilden DD w SSM - Kashin w SSM - Kashin - Kanin - Kilden - Kotlin FFG (Krivak)	- 3 6 13 8 1 8 32	- - 3 6 13 8 1 8 32	- 4 6 13 8 - 8 32	- 3 }19 8 1 8 30	(71) (39) 3 6 13 8 1 8 32
Mine Warfare (MCS) - Alesha	3	3	3	-	3
Amphibious LPD (Ivan Rogov 550 troops) LST - Ropucha (230 troops) - Alligator (300 troops)	- 1 11 14	- 1 13 14	- 1 14 14	- 1 11 14	(27) 1 12 14
Long Range-Aircraft Bombers (Backfire) MPA/ASW (Bear F)	- - -	- 75 -	80 50	- -	(130) 80 ⁴ / 50 ⁻ /

Table 3

ACTIVE THEATER MARITIME FORCES

	Couhat	Jane's	IISS	DIA	Assumed
Theater Ballistic Missile Subs SSBN (H II) SSB (G II)	- 6 12	- 6 13	- 6 13	- - -	(19) 6 13
Attack Submarines SS (K, R, W, Z)	71	75	70	-	71-6/
Theater Surface DD - (all) - Kotlin - Skory FF/FFL - all - Koni - Riga - Petya - Mirka - Grisha I/III	18 7 - 1 37 45 18 36	16 13 - 1 37 44 18 43	15 12 - 1 37 45 18 44	30 ⁷ / - 140 - - -	(169) (27) 16 11 (142) 1 37 45 18 41
Patrol Combatants With Missiles PGG - Tarantul - Nanuchka PGGH - Sarancha	2 20 1	- 4 21 1	- - 3 22 1	25	(106) (25) 3 21 1
Without Missiles PG - Pauk - Poti PGF - T-58	- 3 62 <17	3 62 15	- 5 62 <18	- }70 -	(81) 4 62 ₈ / 15
Mine Warfare 9/ MSF (Nataya, T-43, Yurka) MSC (Andryusha, Sasha, Sonya, Vanya, Zhenya)	- 122 118	132 134	125 125	- 145 -	(257) 131 126
Amphibious LSM - Polnocny (100 Troops)	- 55	- 52	_ 51	-	(53) 5 3
Theater Aircraft Bombers (Badger, Blinder) Fighter-Bombers (Fitter, Forger)	- - 85	- - 75	310 75	- - 70	(526) 310 ⁴ /
MPA/ASW (Mail, May)		135	140	-	76 ₅ /

Table 4
MISCELLANEOUS FORCES

		,		,- · · · ·	
	Couhat	Jane's	IISS	DIA	Assumed
R+D Ballistic Missile Subs	_	_	-	-	(4)
SSBN - H III	1	1	1	_	ì
SSB - G V	i	1	-	_	1
- G IV	1	ī	_	_	1
- G III	ī	ī	1 1	_	١ ,
- G I	3	0	0	-	010/
December 1 Coherenter 1					(108)
Reserve Attack Submarines	70	108	107	_	$\frac{(108)}{108} \frac{11}{11}$
SS/SSC - Q, W, Z	70	100	107		108 —
Miscellaneous Submarines	-	_	-	_	(27)
SSN - Y Conversion	7	8	8	-	8
SSTG - W	3	2	4	-	3
SSQ - G Communications	3	3	3	-	3
SSA - I Salvage/Rescue	2	1	-	_	2
- L Research	1	1	_	-	1
SSR - W	1	2	_	-	2
SST - B, Q	8	4	-	-	8
Mi Carfeer Ferrer]		(16)
Misc. Surface Forces		_	-	_	(16)
AXT - Armed Training Ships	5 7	5	1	-	5
PGR - Radar Pickets		13	12	-	11
Coastal Combatants	_	_	_	_	(217)
With Missiles	-	_	-	_	(125)
PTGH - Matka	8	14	14	1,25	12
PTG - Osa	105	120	115	135	113
Without Missiles	 ~	_	_	l' -	(92)
PCSH - Babuchka	1	1	1	-	1
PT - Shershen	30	30	28	1	29
PTH - Turya	30	30	32	60	31
PCF - Slepen	1	1	1	ľ -	10,
PCS - SO-1	30	<35	30	_	308/
Reserve Surface	_	_	_	_	ł
CG/CL - Sverdlov	_	1	3		$\binom{(43)}{3} \frac{2}{2}$
DD - Skory	13	12	12	_	12
- Kotlin	1.2	2		-	12 010/
FF - Riga	11	10	10	! <u>-</u>	10
MSF - T-43	11	16	20	-	18
rist - 1-43		16	20-		18
KGB Forces	-	-	-	-	(114) ₁₀ /
WFF - Purga	-	1	l -	-	0 = 0'
WFFL - Grisha II	7	6	6	-	6
Patrol/Coastal Combatants	[-	_	-	-	(108)
WPGF - Ivan Susanin] 7	6	8	-	
WPCS - SO-1	-	Some	-	-	7 5 <u>8</u> /
Stenka	100	90	90	-	930,
WPGF - T-58	Some	3	_	-	93 <u>8</u> /

III. SOVIET NAVY FLEET ASSIGNMENTS

Once an assumed level of total forces is calculated, it is necessary to divide these forces into the four main fleets, the Northern, Pacific, Black, and Baltic. None of the four primary sources used proved to have satisfactory information. For example, Couhat only provides some information on aircraft fleet assignments, not ships. Jane's totals in the fleet assignment section often do not agree with totals in the photographic section. IISS only lists major and minor combatants as fleet totals, as does DIA only list all submarines. Hence, these sources can only be used in other categories.

In order to overcome these problems, the author took the percentages of each type forces for each fleet as reported by the primary sources and averaged them (rounding off). This assumed percentage was then used to distribute forces into the four fleets. Where this was not done, the individual case has been footnoted.

Tables 5-8 tabulate the assumed percentages from each major source, the average, and then each of the assumed Soviet navy fleets as constructed from this study. At the end of each of these last four tables are additional non-USSR Warsaw Pact or other "friendly" naval forces which might be usable in time of crisis or war. The methodology used to create the assumed numbers of these forces is identical to that done earlier for the Soviet navy.

To cross check the data once compiled, the total number of ships by fleet in major categories was determined and checked against similar statistics in the open sources. For example, it was determined from Jane's, IISS, and DIA that around 50 percent of all active submarines are in the Northern Fleet. This study places 49 percent there. Similar validation was found in the other fleets. Table 9 demonstrates the deviation in this study's final assumed disposition. No deviations were considered statistically significant. In general, this study places slightly more units in the Baltic Fleet than is generally credited in other sources, primarily due to assumptions made about theater and reserve submarines.

Table 5
Northern Fleet

	Couhat %	Jane's	IISS %	DIA %	Assumed %	Assumed No.
STRATEGIC FORCES All SSBN Typhoon D III D II D I Y II Y I	- - - - -	65 - - - - -	64 - - - - -	-	65 100 65 65 65 65 0	(40) 1 8 3 12 0 16
ACTIVE LONG-RANGE MARITIME FORE Strike Submarines SSGNs SSG (J) SSN (all) SS (F, T)	CES - - - -	- 59 55 67	- - - -	- - - -	- 59 55 67	(127) 29 9 39 50
Surface Strike CVHG CGN/CG (all) - Kirov (CGN) - Blk-Com I - Kresta I - Kynda CG/CL Sverdlov DDG Sovremennyy	- - - - - -	- 33 - 100 0 - - 18 0		5014/ 5014/ - 100 - 25 0 20	- 33 - 100 0 25 0 19	(4) 1 (2) 1 0 1 0 1
Surface ASW CHG CG (all) - Kara - Kresta II DDG Udaloy	- - - -	- 0 - - -	-	- 0 - 0 50 50	- 0 - 0 50	(6) 0 (5) 0 5
Surface Escorts DDG (all) - Kilden DD w SSM - Kashin w SSM - Kashin - Kanin - Kilden - Kotlin FFG (Krivak)	- - - - - -	- 28 - - - - -		- - - }16 63 0 25 23	- - 34 16 63 0 25 23	(18) (11) 1 3 5 0 2 7

Table 5 (Cont.)

	Couhat %	Jane's	11SS %	DIA 7	Assumed %	Assumed No.
Mine Warfare - MCS	-	-		20	20	0
Amphibious LPD (550) LST - Ropucha (230) - Alligator (300)	- - -	- - 25 -	- - - -	$ \begin{array}{c c} - & 0 \\ 24 \\ 36 \\ 14 \end{array} $	0 - 33 14	(6) (0) (6) 4
Long-Range Aircraft 15/ Bombers (Backfire) MPA/ASW (Bear F)	- - -	- - -	-	- - -	25 50	(45) 20 25
ACTIVE THEATER MARITIME FORCES Theater Ballistic Missile Subs SSBN (H II)16/ SSB (G II)17/	- - -	- - 0	-		- 65 0	(4) 4 0
Attack Submarines - SS 18/	-	_	-	_	0	0
Theater Surface DD (Kotlin, Skory)— FF/FFL (all)	- - -	- 19 28	-	- 17 29	18 28	(45) 5 40
Patrol Combatants 19/	_	19		21	20	21
Mine Warfare - MSF/MSC ²⁰ /	-	19		18	18	46
Amphibious - LSM (100)		9		9	9	5
Theater Aircraft Bombers (Badger, Blinder) Fighter-Bombers (Fitter,	-	-		-	25	(131) 77
Forger) MPA/ASW (Mail, May) 22/	18 29	20 ²¹ / 33	-	-	18 29	14 40
MISCELLANEOUS FORCES R+D Ballistic Missile Subs 23/	-	-	-	-	100	4
Reserve Attack Subs - SS/SSC ²⁴	/ -	-		-	25	27
Miscellaneous Submarines SSN (Y)25/ SSTG (W)26/ All Others—		- - -	- - -	-	- 100 0 25	(12) 8 0 4

Table 5 (Cont.)

	Couhat %	Jane's	IISS %	DIA %	Assumed %	Assumed No.
Misc. Surface Forces 24/	-	_	-	-	_	(3)
AXT Armed Training Ships PGR - Radar Pickets	-	-	-	- -	25 25	1 2
Coastal Combatants	_	9	-	8	8	17
Reserve Surface 24/	_	_	-	_	_	(9)
CG/CL DD	_	_	-	-	25 25	0
FF	-	-	-	-	25	2
MSF 24 /	_	-	 -	-	25	4
KGB Forces WFFL	_		_	-	25	(29)
Patrol/Coastal Combatants	-	-	<u>-</u>	-	25	27

Table 6

PACIFIC FLEET

	Couhat %	Jane's	IISS %	DIA %	Assumed %	Assumed No.
STRATEGIC FORCES All SSBN Typhoon D III D II TY II Y I	- - - - -	35 - - - - -	36 - - - - -		35 0 35 35 35 100 35	(22) 0 5 1 6 1 9
ACTIVE LONG-RANGE MARITIME FORCE Strike Submarines SSGNS SSG (J) SSN (all) SS (F, T)	<u>-</u> - - -	- 41 22 33 -	- - - -	- - - -	- 41 22 33 33	(67) 20 3 19 25
Surface Strike CVHG CGN/CG (all) - Kirov (CGN) - Blk-Com I - Kresta I - Kynda CG/CL Sverdlov DDG Sovremennyy		- 33 - 0 0 - - 37 0	-	-14/ 5014/ -0 -50 50 30 0	- 33 - 0 0 50 50 50 33 0	(7) 1 (4) 0 0 2 2 2 2
Surface ASW CHG CG (all) - Kara - Kresta II DDG Udaloy	- - - -	- 0 - - -	- - - -	- 0 - 43 30 0	- 0 - 43 30 0	(6) 0 (6) 3 3
Surface Escorts DDG - (all) - Kilden DD w SSM - Kashin w SSM - Kashin - Kanin - Kilden - Kotlin FFG (Krivak)		- 25 - - - - - -	- - - - - -	- - - 21 37 100 25 33	- 0 21 37 100 25 33	(21) (10) 0 4 3 1 2
Mine Warfare - MCS	-	-	-	28	28	1

Table 6 (Cont.)

	Couhat %	Jane's	IISS %	DIA %	Assumed %	Assumed No.
Amphibious LPD (550) LST - Ropucha (230) - Alligator (300)	- - - -	- 100 37 - -	- - - -	- 0 40 ₁₄ / 4514/	- 0 - 42 36	(10) 0 (10) 5 5
Long-Range Aircraft 15/ Bombers (Backfire) MPA/ASW (Bear F)	-	-	- - -	- - -	- 25 50	(45) 20 25
ACTIVE THEATER MARITIME FORCES Theater Ballistic Missile Subs SSBN (H II)16/ SSB (G II)17/	-	- - 53	- - -	- - -	- 35 53	(9) 2 7
Attack Submarines - SS ¹⁸ /	-		_	-	28	20
Theater Surface DD (Kotlin, Skory) FF/FFL (all)	- - -	- 29 31	-	- 33 29	31 30	(51) 8 43
Patrol Combatants 19/		28	_	38	33	35
Mine Warfare - MSF/MSC ²⁰ /	-	24	-	23	24	62
Amphibious - LSM (100)	-	21	_	18	19	10
Theater Aircraft Bombers (Badger, Blinder) Fighter-Bombers (Fitters, Forgers)	18	20 ²¹ /	-	-	- 33 18	(172) 103
MPA/ASW (Mail, May) 22/	39	25	-		39	55
MISCELLANEOUS FORCES R+D Ballistic Missile Subs 23/			_	_	0	0
Reserve Attack Subs - SS/SSC ²⁴			-		25	27
Miscellaneous Submarines SSN (Y)25/ SSTG (W)26/ All Others24/	-	- - -		- - -	0 0 25	(4) 0 0 4
Misc. Surface Forces 24/ AXT Armed Training Ships PGR - Radar Pickers	-	-	- -	_ _ _	- 25 25	(4) 1 3

Table 6 (Cont.)

	Couhat %	Jane's %	IISS %	DIA %	Assumed %	Assumed No.
Coastal Combatants	-	38	-	36	37	80
Reserve Surface 24/ CG/CL DD FF MSF			1111	1 1 1	25 25 25 25 25	(10) 1 3 2 4
KGB Forces 24/ WFFL Patrol/Coastal Combatants	- -	- - -	-	- - -	_ 25 25	(29) 2 27
NORTH KOREA	Ac	tual Num	bers of	Units		
Attack Submarines SS - R - W	12	13	15 4	12	-	(17) 13 4
Surface (Theater FFL) Reserve	3 -	4 -	2 2	4 -	-	2 2
Patrol Combatant PG	4	5	5	6	-	5
Coastal Combatant	49	65-66	56	-	-	57

Table 7

BLACK SEA FLEET^a

	Couhat %	Jane's %	IISS %	DIA %	Assumed %	Assumed No.
STRATEGIC FORCES	-	0	0		0	0
ACTIVE LONG-RANGE MARITIME FORE Strike Submarines SSGN SSG (J) SSN (all) SS (F, T)	CES - - - - -	- 0 11 0 -	1 1 1 1		- 0 11 0	(1) 0 1 0 0
Surface Strike CVHG CGN/CG (all) - Kirov (CGN) - Blk-Com I - Kresta I - Kynda CG/CL Sverdlov DDG Sovremennyy	- - - - - -	- 33 - 0 100 - - 27 50	-	014/ 0 - 0 - 0 50 40 40/4/	- 33 - 0 100 0 50 34 50	(8) 1 (3) 0 1 0 2 3 1
Surface ASW CHG CG (all) - Kara - Kresta II DDG Udaloy	- - - -	100		100 - 57 0	- 100 - 57 0	(6) 2 (4) 4 0
Surface Escorts DDG (all) - Kilden DD w SSM— - Kashin w SSM - Kashin - Kanin - Kilden - Kotlin FFG (Krivak)	- - - - - -	- 37 - - - - -		- - - 47 0 0 38 20	- 33 47 0 0 38 20	(19) (13) 1 9 0 0 3 6
Mine Warfare	-	_	_	28	28	1
Amphibious LPD (550) LST - Ropucha (230) - Alligator (300)	- - - -	- 19 -	- - - -	- 0 20 0 36	- 0 - 0 36	(5) 0 (5) 0 5

Table 7 (Cont.)

	Couhat	Jane's	IISS	DIA	Assumed	Assumed
	%	%	%_	% %	%	No.
Long-Range Aircraft 15/ Bombers (Backfire) MPA/ASW (Bear F)	-	-	- - -	-	- 25 0	(20) 20 0
ACTIVE THEATER MARITIME FORCES Theater Ballistic Missile Subs SSBN (H II)16/ SSB (G II)17/	- - -	- - 0	- 0 -	-	- - 0	(0) 0 0
Attack Submarines - SS ¹⁸ /	-	_	-	_	26	18
Theater Surface DD (Kotlin, Skory) FF/FFL (all)	- - -	- 33 25		- 33 25	- 33 25	(44) 9 35
Patrol Combatants 19/		19	_	17	18	20
Mine Warfare - MSF/MSC ²⁰ /	_	25	-	25	25	64
Amphibious - LSM (100)	_	35		36	36	19
Theater Aircraft Bombers (Badger, Blinder) Fighter-Bombers (Fitter,	-	-	-	- -	17	(92) 53
Forger) MPA/ASW (Mail, May)	18 18	40 ²¹ /	-	-	18 18	14 25
MISCELLANEOUS FORCES R+D Ballistic Missile Subs	-	-	_	-	0	0
Reserve Attack Subs - SS/SSC 24/	-			-	25	27
Miscellaneous Submarines SSN (Y)25/ SSTG (W)26/ All others24/	- - -	- - -	-	- - -	- 0 33 25	(5) 0 1 4
Misc. Surface Forces AXT - Armed Training Ships PRG - Radar Pickets	- - -	-		- - -	25 25	(4)
Coastal Combatants	-	14		28	21	46
Reserve Surface 24/ CG/CL DD FF MSF	- - - -	- - - -	-	- - - -	- 25 25 25 25 25	(12) 1 3 3 5

Table 7 (Cont.)

	Couhat %	Jane's	IISS %	DIA %	Assumed 7	Assumed No.
KGB Forces 24/	-	<u>-</u>	-	1	- 25	(28)
Patrol/Coastal Combatants	_	-	-	-	25	27
BULGARIA	Ac	tual Num!	ber of	Units		
Attack Submarine - R	2	2	2	3	-	2
Surface (Theater FF)	2	2	2	2	-	2
Patrol Combatant - PG	3	3	3	3	-	3
Mine Warfare - MSF/MSC	6	6	6	-	-	6
Coastal Combatants	16	16	16	-		16
ROMANIA	Ac	tual Numl	per of	Units		
Patrol Combatant - PG	3	3	3	3	-	3
Mine Warfare MCS/MSF	5	5	4	5	-	5
Coastal Combatants	23-25	29	33	-	-	24
Border Guard Coastal Combatants	12	-	-	-	-	12

 $^{^{\}mathbf{a}}$ Includes units assigned to Caspian Sea Flotilla.

Table 8

BALTIC FLEET

	Couhat %	Jane's %	IISS %	DIA %	Assumed %	Assumed No.
STRATEGIC FORCES	-	0	0	-	0	0
ACTIVE LONG-RANGE MARITIME FOR Strike Submarines SSGN SSG (J) SSN (all) SS (F, T)	CES - - - - -	- 0 22 0	1 1 1	1 1 1 1	- 0 22 0	(3) 0 3 0 0
Surface Strike CVHG CGN/CG (all) - Kirov (CGN - Blk-Com I - Kresta I - Kynda CG/CL Sverdlov DDG Sovremennyy	- - - - - - -	- 0 - 0 0 - - 18 50	-	- 0 - 0 - 25 0 10 ₁₄ /	- 0 - 0 0 25 0 14 50	(3) (1) 0 0 1 0 1 1
Surface ASW CHG CG (all) - Kara - Kresta II DDG Udaloy	- - - -	0	- - - -	- 0 - 0 20 50	- 0 - 0 20 50	(3) 0 (2) 0 2 1
Surface Escorts DDG (all) - Kilden DD w SSM - Kashin w SSM - Kashin - Kanin - Kilden - Kotlin FFG (Krivak)	- - - - -	- 10 - - - - -	- - - - - -	- - - 16 0 0 12 23	- - 33 16 0 0 12 23	(13) (5) 1 3 0 0 1 8
Mine Warfare - MCS	-	-		24	24	1
Amphibious LPD (550) LST - Ropucha (230) - Alligator (300)		- - 19 -	- - - -	- 100 1614/ 19	- 100 - 25 14	(6) 1 (5) 3 2

Table 8 (Cont.)

	Couhat %	Jane's %	IISS %	DIA %	Assumed %	Assumed No.
Long-Range Aircraft 15/ Bombers (Backfire) MPA/ASW (Bear F)	- - -	-	- - -	- - -	- 25 0	20 20 0
ACTIVE THEATER MARITIME FORCES Theater Ballistic Missile Subs SSBN (H 11)16/ SSB (G 11)17/	- - -	- - 46	0 46	- - -	- - 46	(6) 0 6
Attack Submarines - SS ¹⁸ /	-	_	-	_	46	33
Theater Surface DD (Kotlin, Skory) FF/FFL (all)	- - -	- 19 16	- - -	- 17 17	- 18 17	(29) 5 24
Patrol Combatants 19/	_	34	_	24	29	30
Mine Warfare - MSF/MSC ²⁰ /	_	32	_	34	33	85
Amphibious - LSM (100)		35	_	36	36	19
Theater Aircraft Bombers (Badger, Blinder) Fighter-Bombers (Fitter,	- -	-	-	- -	- 25	(131) 77
Forger) MPA/ASW (Mail, May) ²² /	46 14	20 ²¹ / 25	-	- -	46 14	34 20
MISCELLANEOUS FORCES R+D Ballistic Missile Subs 23/	-	_	-	-	0	0
Reserve Attack Subs - SS/SSC ²⁴	<u>-</u>		_	-	25	27
Miscellaneous Submarines SSN (Y)25/ SSTG (W)26/ All others24/	- - -	- - -	- - -	- - -	- 0 67 25	(6) 0 2 4
Misc. Surface Forces 24/ AXT - Armed Training Ships PGR - Radar Pickets	-	- - -	- - -	- - -	- 25 25	(5) 2 3
Coastal Combatants	<u></u>	39	-	28	34	74
Reserve Surface 24/ CG/CL DD FF MSF	- - - -	-	-	- - -	- 25 25 25 25 25	(12) 1 3 3 3

Table 8 (Cont.)

	Couhat %	Jane's %	IISS %	DIA %	Assumed %	Assumed No.		
KGB Forces 24/								
WFFL	-	_	[-	_	25	(28)		
Patrol/Coastal Combatants	-	-	-	-	25	27		
EAST GERMANY Actual Number of Units								
Amphibious (Long-Range)		-		-	-	(13)		
LST Frosch (200)	12	12	12	14	_	13		
Surface (Theater)	_	_	-	_	_	(6)		
FF Koni	2	2	2	5	-	2		
FFL Parchim	2	5	6	, -	-	4		
Patrol Combatants PGF Hai III	12	8	- 10	- 11	<u>-</u>	(10) 10		
Mine Warfare	_	_	_	_	_	(30)		
MSC Kondor II	29	31	30	30	_	30		
Kondor I	0	Ō	2	-	_	0		
Coastal Combatants	_	_	_	_] _	(33)		
PTG Osa	15	15	15	15	-	15		
PT Shershen	18	18	18	-	-	18		
Miscellaneous	_	-	_	-	-	(20)		
AXT Wodnik	1	1	-	-	-	1		
Frontier Guard Coastal Combatants	21	18	18			19		
Combatants	21	10	1 10		<u> </u>	1 19		
FINLAND	Ac	tual Numl	ber of	Units				
Surface (Theater) FF/MM	1	0	0	-	-	0		
Patrol Combatants	2	2	2	-	-	2		
Mine Warfare - MM	2	3	3	_	-	3		
Coastal Combatants	11	11	10	-	-	11		
Frontier Guard Patrol Combatants	3	3	-	_	-	3		
Frontier Guard Coastal Combatants	2	2	-	-	-	2		

Table 8 (Cont.)

	Couhat %	Jane's %	IISS %	DIA %	Assumed %	Assumed No.
POLAND	Acti	ual Numbe	er of	Units		
Surface Escort - DDG	1	1	1	1	-	1
Attack Submarine - W	4	4	4	4	_	4
Mine Warfare - MSF/MSC	24	24	24	24	-	24
Amphibious - LSM (130)	23	23	23	23	-	23
Theater Aircraft Fighter-Bomber	40	40	52	50	-	45
Coastal Combatants	18	18	-	-	-	18
Miscellaneous AXT Wodnik Border Guard Combatants	2 25	2 27	- -	<u>-</u>	- -	(28) 2 26

Table 9

(Page 1 of 2)

DEVIATION FROM NORMS

(Number Units)

	r					· — —
	Couhat	Jane's	IISS	DIA	Mean	Assumed No.
NORTHERN FLEET						
All Submarines	-	178	185	186	183	187
Major Combatants 27/	_	83	75	73	77	73
Major Aircraft 28/	150	192			171	176
PACIFIC FLEET						
All Submarines	_	121	120	124	122	122
Major Combatants 27/	_	93	85	84	87	85
Major Aircraft 28/	215	204	_	_	210	217
BLACK SEA FLEET a						
All Submarines	-	22	20	26	23	24
Major Combatants 27/	_	84	92	75	84	77
Major Aircraft 28/	140	144			142	112
BALTIC FLEET						
All Submarines	_	44	30	34	36	48
Major Combatants 27/	-	44	50	47	47	48
Major Aircraft ²⁸ /	150	156	-	_	153	151
TOTAL						
All Submarines	-	365	355	370	363	3 81
Major Combatants $\frac{27}{30}$	-	304	302	279	295	283
Major Aircraft ²⁸ /	655	696	-	-	676	656

^aIncludes units assigned to Caspian Sea Flotilla.

Table 9

(Page 2 of 2)

DEVIATION FROM NORMS

(% in Fleet)

	Couhat	Jane's	IISS	DIA	Mean	Assumed %
NORTHERN FLEET						
All Submarines	_	49	52	50	50	49
Major Combatants 27/	_	27	25	26	26	26
Major Aircraft $\frac{28}{}$	23	28	_		26	24
				_		
PACIFIC FLEET						
All Submarines	_	33	34	34	34	32
Major Combatants 27/	_	31	28	30	30	30
Major Aircraft ²⁸ /	33	29		_	31	32
ny avy avy ny mpa			!			
BLACK SEA FLEET						
All Submarines	_	6	6	7	6	6
Major Combatants 27/	_	28	31	27	29	27
Major Aircraft 28/	21	21			21	21
				}		
BALTIC FLEET						
All Submarines	-	12	8	9	10	13
Major Combatants 27/	-	14	16	17	16	17
Major Aircraft 28/	23	22	_	-	22	23

 $^{^{\}mathrm{a}}$ Includes units assigned to Caspian Sea Flotilla.

IV. SOVIET NAVY DEPLOYMENTS

From the total number of units in each of the four fleet areas, it is necessary to account for those active navy ships which are deployed elsewhere on a routine basis. To determine the ability to sustain combat operations, one must subtract these already deployed units from the total amount in each fleet.

In general, the Soviet navy appears to have seven main out of area deployment locations. The first is the Atlantic Ocean. Yankee class SSBNs are routinely deployed off the U.S. East Coast. A similar deployment occurs in the Pacific Ocean off the U.S. West Coast. These units are the Soviet forward based strategic nuclear systems comparable to U.S./NATO systems in Europe.

A third major deployment area is the Mediterranean Sea. This area contains the largest number of warships consistently deployed out of area by the Soviet Union. The fourth area, the Indian Ocean, is significantly smaller and represents a severe challenge to the Soviet navy due to the length of the supporting sea lines of communications. Innovations such as the manipulation of merchant ships and the painting of warships to look like merchants is routine by the Soviets to allow forward deployment without the establishment of over seas "bases."

The fifth area, the South China Sea, is an area where more recent activity has been taking place and a new capability exists. The USSR has established a significant presence and utilizes Vietnamese naval and air facilities, some of which were constructed by the U.S.

Two final areas contain minor numbers of warships. One is the West Africa patrol and the other is the Caribbean. The latter is sporatic and not always maintained.

In calculating the numbers of ships in each of these forward deployed areas, it is necessary to only count warships which were used in earlier calculations. The Soviets claim that their auxiliaries are the legal equivalent of warships but for purposes of this study, only those units which have been considered already will be accounted for. This is a significant difference from most Navy studies which measure out of area "ship days" but in doing so count all warships (including Soviet Naval Auxiliaries) and occasionally Soviet merchants and research vessels.

Another factor is to account for units which are in transit to and from distant areas. This is difficult to document and assumed average numbers are used. A final number of ships can be assumed to be in the Atlantic and Pacific conducting exercises or on occasional forays into the deep water oceans.

Table 10 contains the types and numbers of specific units which are forward deployed, where they are located, and from which fleet their numbers must be subtracted. The Caspian Sea Flotilla is accounted for herein since its numbers must adjust the Black Sea totals.

One must be cautious to assume that the present peacetime routine deployments represent the force disposition in time of a major war. Since one of the purposes of this study is to determine the ability for the Soviets to support a "bolt from the blue" attack, it is proper to use the current peacetime deployment as the base for consideration.

Naval forces are inherently mobile and certainly units on forward deployment can be recalled or shifted to other areas where they could combine. Thus the data represented herein reflects current patterns and may have to be adjusted for future contingencies.

Since the units presented in Table 10 use ship terms as found in the cited original sources, it is necessary to make some assumptions about how to equate those terms to the types used in this study.

In the Atlantic Ocean it is assumed that at least one SSGN/SSG is always deployed and additional subs would be either SSNs or SSs. Of those units in transit to the Mediterranean, it will be assumed the ratio of cruise missile subs to torpedo subs is the same as actually deployed, around 27 percent missile units. Surface combatants are assumed to be DDG/FFGs.

In the Pacific similar assumptions will be made resulting in tabulating submarines in a similar manner as was done in the Atlantic. Cruisers will be assumed to be CGs and destroyers DDG/FFGs due to the lack of forward based aircraft.

For the Mediterranean theater, cruisers, destroyers, or patrol combatants may or may not be missile equipped due to the possibility of surface ships operating under the protective umbrella of Soviet land based naval aviation. Hence it will be assumed that if the maximum number of cruisers is deployed, at least one is a non-missile ship. Similarly half of the number of escorts are assumed to be non-missile equipped destroyers and frigates. It is also assumed that the new Udaloy DDG could substitute for a CG. Minesweepers in the Mediterranean will be assumed to be MCS/MSFs.

In the Indian Ocean, the attack submarine will be assumed to be a long-range conventional or nuclear powered ship. The surface ships will all be assumed to be missile equipped. Mine warfare ships will be assumed to be MCS/MSFs and the amphibious ships LSTs.

The South China Sea appears to be an area where major naval activities are taking place. It is assumed that there is at least one SSGN and SSG from amongst the submarines. It is assumed that half of the destroyers are non-missile ships due to the possibility of support from land-based aviation operating from Vietnam.

The West Africa patrol is clearly delineated and needs no assumptions. The Caribbean patrol is so sporatic that its numbers will not be accounted for except as a footnote. The Caspian Sea flotilla is more difficult since there are no good sources as to its composition. Since it appears to be a training flotilla, it is assumed that at least 3 of each type is included. Submarines will be assumed to be all Q SSIs and some frigates. There are undoubtedly other smaller combatants in the Caspian. It is assumed that at least ten patrol and coastal combatants are in the flotilla. It is also assumed a minimal KGB coastal detachment is in the Caspian Sea (5 ships).

In the final category of unknown, at least one of every major category of submarine will be included (SSBN, SSGN/SSG, SSN, SS). A CVHG/CHG group including at least two DDG and one FFG escorts are assumed deployed in some location which would need to be identified. It is illogical that such a major warship would transit unaccompanied.

Hence, with these assumptions, it is possible to create a table of ships using terms contained in this study and which can be subtracted from their home fleets. Table 11 represents the loss to home fleets due to forward deployments. Where necessary, whole numbers of ships are rounded off.

Aircraft deployments appear to be from 2-4 aircraft. A minimum of two appears logical since they can offer each other mutual support. There is always the possibility of an additional deployment for special operations such as major exercises or mine clearing operations as was done in Suez.

Table 10

SOVIET NAVY FORWARD DEPLOYMENTS

			1
Notes	transit	In transit to Mediterraneau In transit to Africa In transit to Africa	In transit to U.S. Coast In transit to Indian In transit to Indian In transit to South China Sea In transit to South China Sea In transit to South China Sea In transit to South China Sea/Indian
Assumed Home Fleet		Northern Baltic Baltic	Pacific Pacific Pacific Pacific Pacific Pacific Pacific Pacific Pacific Pacific Back Black Black Black Black Black
No.	$\begin{array}{c} \frac{3.29}{2.30}/\\ \frac{2.30}{31}/\\ 1-3\frac{31}{31}/\\ 0-2\frac{31}{32}/\\ \end{array}$	10-13 <u>25/</u> <1333/ <1 <u>33</u> /	29/ 0-135/ 0-235/ 0-235/ 136/ 136/ 136/ 136/ 136/ 136/ 136/ 136
Type Unit ^a	SSBN (Y) SSBN (Y) Torp/Missile Attack Subs Surface Combatants	Diesel Submarines DDG LST	SSBN (Y) SSBN (Y) Cruise Missile Submarine Attack Submarine Amphibious Ship Nuclear Submarines Diesel Submarines Cruisers Bestroyers Frigates Minesweepers Cruise Missile Attack Subs Torpedo Attack Submarines Cruisers Minesweepers Lorpedo Attack Submarines Cruisers Minesweepers LST LSN
Location	Atlantic Ocean		Pacific Ocean Mediterranean Sea

Table 10 (Cont.)

Location	Type Unit ^a	No.	Assumed Home Fleet
1ndian Ocean	Cruise Missile Submarine Attack Submarine Cruisers Destroyers Frigates Minesweeper Amphibious Ships Theater Range Aircraft	0-1 1 1 2 2 2 2 1 3 Some	Pacific Pacific Pacific Pacific Pacific Pacific
South China Sea	Nuclear Submarines Diesel Submarines Cruisers W/Missiles Destroyers W/O Missiles Minesweeper Long Range Afreraft	$\begin{array}{c} 3\frac{41}{4^{1}} \\ 4\frac{41}{4^{2}} \\ 1 - 3\frac{42}{4^{2}} \\ 1 - 2\frac{42}{4^{2}} \\ 0 - 1\frac{42}{4^{3}} \end{array}$	Pacific Pacific Pacific Pacific Pacific
West Africa Patrol	DDG LST Long Range Aircraft	$\frac{144}{144}$ Some- $\frac{45}{2}$	Baltic Baltic Northern
Caribbean Sea 46/	Submarines Cruisers Destroyers Frigates Long Range Aircraft 47/	<pre></pre>	Northern or Baltic Northern or Baltic Northern or Baltic Northern or Baltic Northern or Baltic
Caspian Sea	Submarines Frigates MSF Others	Some Some > 249/ UNK	Black Sea Black Sea Black Sea Black Sea

Table 10 (Cont.)

			Assumed
Location	Type Unit	No.	Nome Fleet
Unknown/Various	Submarine $\frac{51}{51}$ /CVHG/CHG $\frac{51}{51}$ /Escorts	UNK 50/ 1 Some	All with access to major oceans Black Black

^aTerms used are those found in cited sources.

Table 11

IMPACT OF FORWARD DEPLOYMENTS/TRANSIT FORCES

Home Fleet	Type Unit	Number	Deployed Location 52/
Northern	SSBN (Y)	5	Atlantic
	SSBN (Y)	1	Unknown
	SSGN/SSG	4	Atlantic
	SSGN/SSG	2-3	Mediterranean
	SSGN/SSG	1	Unknown
	SSN/SS	7-12	Atlantic
	SSN/SS	8-10	Mediterranean
	SSN/SS	2	Unknown
	DDG/FFG	0-2	Atlantic
	Various	Various	Caribbean 53/
	Long Range Aircraft MPA/ASW	2-4	Caribbean/West Africa
Pacific	SSBN (Y)	2	Pacific
	SSBN (Y)	1	Unknown
	SSGN/SSG	0-1	Pacific
	SSGN/SSG	0-1	Indian
	SSGN/SSG	2	South China Sea
	SSGN/SSG	1	Unknown
	SSN/SS	2-4	Pacific
	SSN/SS	1	Indian
	SSN/SS	5	South China Sea
	SSN/SS	2	Unknown
	CG	0-1	Pacific
	CG	1	Indian
	CG	1	South China Sea
	DDG/FFG	1-2	Pacific
	DDG/FFG	4	Indian
	DDG/FFG	1-3	South China Sea
	LST (230-300)	1	Pacific
	LST (230-300)	2	Indian

Table 11 (Cont.

Home Fleet	Type Unit	Number	Deployed Location 52/
	DD/FF	1-2	South China Sea
	MCS/MSF	0-1	Pacific
	MCS/MSF	1	Indian
	MCS/MSF	0-1	South China Sea
	Long Range Aircraft MPA/ASW	4	South China Sea
Disab Cas	COT	,	
Black Sea	SST	4	Caspian Sea
	CVHG/CHG	1	Various
	CG/Major DDG	2-3	Mediterranean
	CG/CL	0-1	Mediterranean
	DDG/FFG	5-6	Mediterranean
	DDG/FFG	3	Various with CVHG/CHG
	LST (300)	1	Mediterranean
	DD/FF	4-6	Mediterranean
	FF	3	Caspian Sea
	MCS/MSF	1-3	Mediterranean
	MSF	3	Caspian Sea
	LSM (100)	2	Mediterranean
	Patrol Combatants	10	Caspian Sea
	Coastal Combatants	10	Caspian Sea
	KGB Coastal Combatants	5	Caspian Sea
1	Theater Aircraft MPA/ASW	2-4	Indian
Baltic	ss/ssc	1	Unknown
	DDG/FFG	0-1	Atlantic
	DDG/FFG	1	W. Africa
	LST (260)	0-1	Atlantic
	LST (260)	1	West Africa
	Various	Various	Caribbean 53/

From the data in Table 11, the following percentages of the various types of fleet units can be assumed to be on forward deployment. Table 12 contains each type of unit maintained on forward deployment. The number deployed, the total of each type in the active Navy inventory, and the percentage deployed. As was done earlier, aircraft deployments are discounted. The Caspian Sea Flotilla is discounted because it is not a "deployment."

Table 12 3/23/83
PERCENTAGES OF VARYING TYPE UNITS DEPLOYED/IN TRANSIT

Type Unit	No. Deployed/ in Transit	Total No.	% Deployed/ in Transit
STRATEGIC FORCES			
SSBN (Y)	9	26	35
ACTIVE LONG-RANGE MARITIME FORCES			
SSGN/SSG	10-13	65	15-20
SSN/SS	27-36	131	21-27
CVHG/CHG	1	5	20
CG	4-6	27	15-22
CG/CL	0-1	7	0-14
DDG/FFG	15-22	71	21-31
LPD	0	1	0
LST	5-6	26	19-23
Long Range Aircraft - MPA/ASW	6-8	50	12-16
ACTIVE THEATER MARITIME FORCES			
SS	1	71	1
DD/FF	6-8	169	4-5
MCS/MSF ⁵⁴ /	2-6	134	1-4
LSM	2	53	4
Theater Range Aircraft - MPA/ASW	2-4	140	1-3

For comparison to the U.S. Navy, some 55 percent of all Polaris/Poseidon strategic submarines were on station at any one time and roughly 1/3 of the major surface combatants are actually deployed.

V. SOVIET NAVY CONTIGUOUS WATERS CAPABILITY

Having now accounted for forces in each of the fleets and those units which are in distant water locations, it only remains to assess the impact on the remaining home fleets. Although it is certainly possible to recall forward deployed ships to home waters, one of the purposes of this analysis is to determine the force structure of the Soviet pavy if a bolt from the blue attack were attempted.

No navy can put 100 percent of its fleet to sea or aircraft in the air at any one time. There are always units involved with periodic scheduled maintenance, overhauls, or conversion. There will also be additional ships undergoing unscheduled repair work as the result of casualties or similar peacetime damage.

For the purposes of this study, two cases will be constructed for the ability of the Soviet navy to actually put ships to sea and fly mission capable aircraft. The initial case will be a "low threat" where it is assumed that 33 1/3% of the fleet (including those already forward deployed) is immediately available and outfitted for sustained operations. This group is assumed to be either actually at sea (or flyable at least partial mission capable) or able to get underway within 48 hours (rapid surge). No reserve units are included in this category although 16 2/3% of allied units are assumed available.

For this low threat, an alternative scenario will be calculated, where mobilization is undertaken. A period of some weeks should enable the Soviet navy to sail/fly some of their active fleet undergoing minor repairs and at least a part of their reserve assets. For the purposes of this study, it will be assumed that $66\ 2/3\%$ of the active fleet and $16\ 2/3\%$ of the reserve or allied fleets would be available during mobilization (including those already forward deployed).

An additional "high threat" would be the "worst case" for the U.S./NATO. In this high threat, it is assumed that 50% of the active fleet can be available within 48 hours, with 16 2/3% of the reserves and 33 1/3% of the allied fleets. For a high threat mobilization scenario, the assumption will be 75% of the active fleet, 33 1/3% of the reserves, and 50% of the allied fleets available within two weeks.

Tables 13-16 should provide a reasonable estimate of the ability of the Soviet Union and her allies to actually put ships to sea or aircraft in the air in contiguous waters. This estimate could naturally be increased by recalling units out of area or alternately decreased by putting additional units on forward deployment.

It is emphasized that the numbers of each type unit on normal forward deployment or in transit to/from such locations need to be subtracted giving the true surge or mobilization capability into contiguous waters. This has been done in Tables 13-16. No attempt is made to ascertain numbers of units actually in home waters during normal peacetime. All tables have rounded out numbers of ships. Similar categories of ships have been combined.

Table 13

NORTHERN FLEET - CONTIGUOUS WATERS CAPABILITY 55/

	Assumed	No. Out	Rapid :		Mobili Total	
	Total ^a	Area ^b	Low	High d	Low	High f
STRATEGIC FORCES						
Typhoon	1	0	0	1	1	1
Delta	23	Ö	8	12	15	17
Yankee	16	6	0	2_	5	6
ACTIVE LONG-RANGE MARITIME	FORCES					
Strike Submarines SSGN/SSG	38	7-8	5-6	11-12	17-18	21-22
SSN/SS	89	17-24	6-13	21-28	35-42	43-50
55N/55	09	17-24	0~13	21-28	33-42	43-30
Surface Strike						_
CVHG	1	0	0	1	1	1
CGN/CG	2	0	1	1	1	2
CG/CL	1	0	0	1	1	1
Surface ASW						
CG/DDG	6	0	2	3	4	5
Surface Escorts DDG/FFG	18	0-2	4-6	7-9	10-12	12-14
Amphibious						_
LST (250 avg)	6	0	2	3	4	5
Long Range Aircraft	1				 	
Bombers	20	0	7	10	13	15
MPA/ASW	25	2-4	4-6	9-11	13-15	15-17
ACTIVE THEATER MARITIME FOR	l CES	{			İ	Ì
Theater Ballistic Missile S		,				
SSBN	4	0	1	2	3	3
				0	0	0
Attack Submarines - SS	0	0	0			
Theater Surface - DD/FF/FFL	45	0	15	23	30	34
Patrol Combatants	21	0	7	11	14	16
Mine Warfare - MCS/MSF/ MSC54/	46	0	15	23	31	35
Amphibious - LSM (100)	5	0	2	3	3	4

Table 13 (Cont.)

	Assumed	No. Out	Rapid :	Surge Threat	Mobili Total	zation Threat
	Total	Areab	Low ^c	High	Lowe	$High^\mathbf{f}$
Theater Aircraft Bombers Fighter-Bombers MPA/ASW	77 14 40	0 0 0	26 5 13	39 7 20	51 9 27	58 11 30
MISCELLANEOUS FORCES 56/ R&D Ballistic Missile Subs	4 SC 27	0	1	2	3 4	3
Misc. Surface - AXT	1	0	0	1	1	1
Coastal Combatants	17	O	6	9	11	13
Reserve Surface DD/FF MSF	5 4	0	0 0	1 1	1 1	2 1
KGB Forces WFFL Patrol/Coastal Combatant	2 27	0	1 9	1 14	1 18	2 20

^aTaken from Table 5.

baken from Table 11.

 $^{^{\}rm c}$ 33 1/3% of active less deployed units, 16 2/3% of allies, 0% reserves.

 $^{^{\}text{d}}\text{50\%}$ of active less deployed units, 33 1/3% of allies, 16 2/3% reserves.

 $^{^{\}mathbf{e}}$ 66 2/3% of active less deployed units, 33 1/3% of allies, 16 2/3% reserves.

 $^{^{\}rm f}$ 75% of active less deployed units, 50% of allies, 33 1/3% reserves.

Table 14

PACIFIC FLEET - CONTIGUOUS WATERS CAPABILITY

	Assumed	No. Out	Rapid Total		Mobili Total	
	Total ^a	Areab	Low ^C	High ^d	Low	High
STRATEGIC FORCES						
Delta Yankee	12 10	0 3	4 0	6 2	8 4	9 5_
ACTIVE LONG-RANGE MARITIME	FORCES					
Strike Submarines SSGN/SSG SSN/SS	23 44	3-5 10-12	3 - 5 3 - 5	7-9 10-12	10-12 17-19	12-14 21-23
Surface Strike CVHG CG CG/CL	1 4 2	0 1-2 <u>57</u> / 0	0 0 1	0-1 1	1 1-2 1	1 1-2 2
Surface ASW CG	6	1 <u>57</u> /	1	2	3	4
Surface Escorts DDG/FFG	21	6-9	0-1	2-5	5-8	7-10
Amphibious LST (230-300)	10	3	0	2	4	5
Long-Range Aircraft Bombers MPA/ASW	20 25	0 4	7 4	10 9	13 13	15 15
ACTIVE THEATER MARITIME FOR						
Theater Ballistic Missile S	Subs 9	o	3	5	6	7
Attack Submarines - SS	20	0	7	10	13	15
Theater Surface - DD/FF/FFL	51	1-2	15-16	24-25	32-33	36-37
Patrol Combatants	35	0	12	18	23	26
Mine Warfare - MCS/MSF/ MSC 54/	63	1-3	18-20	29-31	39-41	44-46
Amphibious - LSM (100)	10	0	3	5	7	8

Table 14 (Cont.)

	Assumed No.	No. Out of	Rapid Total	Threat	Mobili Total	
	Totala	Area ^b	Low ^C	Highd	Lowe	High
Theater Aircraft						
Bombers	103	0	34	52	69	77
Fighter-Bombers	14	0	5	7	9	11
MPA/ASW	55	0	18	28	37	41
MISCELLANEOUS FORCES 56/						
Reserve Attack Subs - SS/SS	C 27	0	0	4	4	9
Misc. Surface - AXT	1	0	0	1	1	1
Coastal Combatants	80	0	27	40	53	60
Reserve Surface						
CG/CL	1	0	0	0	0	0
DD/FF'	5	0	0	1	1	2
MSF	4	0	0	1	1	1
KGB Forces						
WFFL	2	0 ~	1	1	1	2
Patrol/Coastal Combatants	27	Some g	<9	<14	< 18	< 20
NORTH KOREA						
Attack Subs - SS	17	0	3	6	6	9
Attack Subs - 55	17		٦	"		9
Surface - FFL	2	l o	0	1	1	1
- Reserve FFL	2	0	0	0	0	0
Patrol Combatants	5	0	1	2	2	3
			1	-	1 -	
Coastal Combatants	57	0	9	19	19	29

^aTaken from Table 6.

bTaken from Table 11.

 $^{^{\}text{c}}33\ 1/3\text{\%}$ of active less deployed units, 16 2/3% of allies, 0% reserves.

 $^{^{}m d}$ 50% of active less deployed units, 33 1/3% of allies, 16 2/3% reserves.

 $^{^{\}mathbf{e}}$ 66 2/3% of active less deployed units, 33 1/3% of allies, 16 2/3% reserves.

 $[^]f75\%$ of active less deployed units, 50% of allies, 33~1/3% reserves.

 $^{^{}g}$ Assume some deployed inland in rivers.

Table 15

BLACK SEA FLEET - CONTIGUOUS WATERS CAPABILITY

	Assumed No.	No. Out	Rapid Total	Surge Th <u>reat</u>	Mobili Total	
	Total	Area ^b	Low ^C	High ^d	Low	High
ACTIVE LONG-RANGE MARITIME	FORCES					
Strike Submarines	1	0	0	1	1	1
Surface Strike		258/				
CVHG CG/DDG	1 4	$0\frac{58/}{57/}$ 1-2/	0	0-1	1-2	1-2
CG/CL	3	0-1	0-1	1-2	1-2	1-2
Surface ASW CHG	2	158/	0	0	0	1
CC	4	1	0	1	2	2
Surface Escorts DDG/FFG	19	8-9	0	1-2	4-5	5-6
Amphibious LST (300)	5	1	1	2	2	3
Long-Range Aircraft Bombers	20	0	7	10	13	15
ACTIVE THEATER MARITIME FOR	CES					
Attack Submarines - SS	18	0	6	9	12	14
Theater Surface - DD/FF/FFL	44	7-9	6-8	13-15	20-22	24-26
Patrol Combatants	20	10	0	0	3	5
Mine Warfare - MCS/MSF/54/	65	4-6	16-18	27-29	37-39	43-45
Amphibious - LSM (100)	19	2	4	8	11	12
Theater Aircraft Bombers	53	0	18	27	35	40
Fighter-Bombers MPA/ASW	14 25	0 2-4	5 4 ~ 6	7 9-11	9	11 15-17
MISCELLANEOUS FORCES 56/ Reserve Attack Subs - SS/SS	C 27	0	0	4	4	9
Misc. Surface - AXT	1	0	0	1	1	1

Table 15 (Cont.)

	Assumed No.	No. Out of	Rapid Total	Surge Threat	Mobili Total	
	Total ^a	Area ^b	Low ^C	High	Low ^e	High
Coastal Combatants	46	10	5	13	21	25
Reserve Surface CG/CL DD/FF MSF	1 6 5	0 0 0	0 0 0	0 1 1	0 1 1	0 2 2
KGB Forces WFFL Patrol/Coastal Combatants	1 27	0 >5 ⁸	0 < 4	1 < 9	1 <13	l <15
BULGARIA Attack Submarines - SS	2	0	0	1	1	1
Surface - FF	2	0	o	1	1	1
Patrol Combatants	3	0	0	1	1	2
Mine Warfare - MSF/MSC	6	0	1	2	2	3
Coastal Combatants	16	0	3	5	5	8
ROMANIA Patrol Combatants	3	0	0	1	1	2
Mine Warfare - MSC/MSF	5	0	1	2	2	3
Coastal Combatants	24	0	4	8	8	1.2
Border Guard Coastal Combatants	12	0	2	4	4	6

^aTaken from Table 7.

 $^{^{\}rm b}{\rm Taken}$ from Table 11 including those units assumed to be in Caspian Sea Flotilla.

 $^{^{\}rm c}33$ 1/3% of active less deployed units, 16 23/% of allies, 0% reserves.

 $^{^{\}text{d}}\text{50\%}$ of active less deployed units, 33 1/3% of allies, 16 2/3% reserves.

 $^{^{\}mathbf{e}}_{\mathbf{66}}$ 2/3% of active less deployed units, 33 1/3% of allies, 16 2/3% reserves.

 $^{^{\}mathrm{f}}$ 75% of active less deployed units, 50% of allies, 33 1/3% reserves.

 $^{^{}g}$ Additional units probably deployed in rivers.

Table 16

BALTIC FLEET - CONTIGUOUS WATERS CAPABILITY 55/

	Assumed	No. Out	Rapid	Curaa	W.sh : 1 :	zation
	No.	of		Surge Threat		Threat
	Total ^a	Areab	Low ^C	High	Low	High
ACTIVE LONG-RANGE MARITIME	FORCES					
Strike Submarines SSG	3	0	1	2	2	2
Surface Strike CG/DDG	2	0	1	,	,	2
CG/CL	1	0	0	1	1	2 1
Surface ASW CG/DDG	3	0	1	2	2	2
Surface Escorts DDG/FFG	13	1-2	2-3	5-6	7-8	8-9
Amphibious LPD (550) LST (260 avg)	1 5	0 1-2	0 0 - 1	1 1-2	1 1-2	1 2-3
Long-Range Aircraft Bombers	20	0	7	10	13.	15
ACTIVE THEATER MARITIME FOR						
Theater Ballistic Missile S SSB	6	0	2	3	4	5
Attack Submarines - SS	33	1	10	16	21	24
Theater Surface - DD/FF/FFL	29	0	10	15	19	22
Patrol Combatants	30	0	10	15	20	23
Mine Warfare - MCS/MSF/54/	86	0	29	43	57	65
Amphibious - LSM (100)	19	0	6	10	13	14
Theater Aircraft Bombers	77	0	26	39	51	58
Fighter-Bombers MPA/ASW	34 20	0	11	17 10	23 13	26 15
MISCELLANEOUS FORCES 56/ Reserve Attack Subs - SS/SS	SC 27	0	0	5	5	9
Misc. Surface - AXT	2	0	1	1	1	2
Coastal Combatants	74	0	25	37	49	56

Table 16 (Cont.)

	Assumed No.	No. Out	Rapid Total	Surge Threat	Mobili Total	
	Total	Area ^b	Low ^C	High	Lowe	High f
Reserve Surface CG/CL DD/FF MSF	1 6 5	0 0 0	0 0 0	0 1 1	0 1 1	0 2 2
KGB Forces WFFL Patrol/Coastal Combatants	1 3 27	0 0	0 9	1 14	1 18	1 20
EAST GERMANY Amphibious - LST (200)	13	0	2	4	4	7
Surface - FF/FFL	6	0	1	2	2	3
Patrol Combatants	10	0	2	3	3	5
Mine Warfare - MSC	30	0	5	10	10	15
Coastal Combatants	33	О	5	11	11	17
Misc. Surface - AXT	1	0	0	0	0	1
Frontier Guard Coastal Combatants	19	0	3	6	6	10
FINLAND Patrol Combatants	2	0	0	1	1	1
Mine Warfare - MM	3	0	0	1	1	2
Coastal Combatants	11	0	2	4	4	6
Frontier Guard Patrol Combatants	3	0	0	1	1	2
Frontier Guard Coastal Combatants	2	0	0	1	1	1
POLAND Surface Escort - DDG	1	0	0	0	0	1
Attack Submarines - SS	4	0	1	1	1	2
Mine Warfare - MSF/MSC	24	0	4	8	8	12
Amphibious - LSM (130)	23	0	4	8	8	12

Table 16 (Cont.)

	Assumed No.	I map ta barge			zation Threat	
	Totala	Area ^b	Low ^C	High	Lowe	High
Theater Aircraft Fighter/Bomber	45	0	7	15	15	23
Coastal Combatants	18	0	3	6	6	9
Misc. Surface - AXT	2	О	0	1	1	1
Border Guard Coastal Combatants	26	0	4	9	9	13

^aTaken from Table 7.

bTaken from Table 11.

 $^{^{\}rm c}$ 33 1/3% of active less deployed units, 16 2/3% of allies, 0% reserves.

 $^{^{\}rm d}_{\rm 50\%}$ of active less deployed units, 33 1/3% of allies, 16 2/3% reserves.

 $^{^{\}rm e}$ 66 2/3% of active less deployed units, 33 1/3% of allies, 16 2/3% reserves.

 $^{^{\}rm f}$ 75% of active less deployed units, 50% of allies, 33 1/3% reserves.

VI. SOVIET NAVY OUT OF AREA CAPABILITY

Just as allies can assist the Soviet navy in contiguous waters, it is possible that allies or "friendly" nations might assist the Soviets in their forward deployed areas. Table 17 will account for the naval forces in certain nations which are adjacent to standard Soviet deployment areas. The methodology for accounting for forces is identical to that used earlier in Tables 5-8.

Once these calculations are complete, Tables 18-25 list each deployment area and the capability of potential allies to rapidly surge or mobilize in support of Soviet units. The methodology for determining the rapid surge or mobilization capabilities of foreign navies is identical to that used in Tables 13-16.

Other nations are potential Soviet allies but are not listed due to the lack of significant navies.

Table 17

POTENTIALLY FRIENDLY NAVIES IN DISTANT WATERS 59/

	Couhat	Jane's	IISS	DIA	Assumed No.
ALBANIA Attack Submarines - W	3 ^a	2	3	4	0
Mine Warfare - MSF	2	2	2	2	2
Coastal Combatants	4	3	3	_	3
ALGERIA Attack Submarines - R	2	0	0	-	2
Surface (Theater) Koni - FF	1	2	2	_	2
Patrol Combatants	2	2	2	-	2
Mine Warfare - MSF - MSF Reserves	2 -	2 -	0 2	- -	0 2
Amphibious - LSM	1	1	1	-	1
Theater Aircraft - MPA	11	12	7	-	10
Coastal Combatants	18	19	17	-	18
ANGOLA Amphibious - LSM	4	4	4	-	4
Coastal Combatants	11	9	9	<u>-</u>	10
CUBA Strike Submarines - F	2	2	2	2	2
Attack Submarines - Reserve W	1 a	1	l a	0	0
Surface (Theater) Koni - FF	1	1	1	1	1
Mine Warfare - MSC	2	2	2	2	2
Coastal Combatants	34	37	34		35
ETHIOPIA Surface (Theater) FFL AXT	1	0	0 1 ^a	_	0
LSM (100)	1 2	1	1	-	0 2

Table 17 (Cont.)

				· · · · · · · · · · · · · · · · · · ·	
	Couhat	Jane's	IISS	DIA	Assumed No.
Coastal Combatants Active Reserve/Inactive	11 0	11+ 0	10 1 ^a	-	10
IRAO Surface (Theater) FFT	,				
	1	i -	1	-	1
Mine Warfare - MSF	2	2	Some	-	2
Amphibious - LSM	3	4	3	-	3
Coastal Combatants	11	15	8+	_	13
<u>LIBYA</u> Strike Submarines - F	5	5	5	-	5
<u>Surface</u> FFG	1	1	1	-	1
Patrol Combatant	6	7	4	-	7
Mine Warfare - MSF - MM/AKR	2 1	2	2 1	-	2 1
Amphibious LST (240) LSM (180)	2 3	2	2 3	- -	2 3
Coastal Combatants	21	19	20	-	20
SYRIA Surface - FFL	2	2	2	-	2
Mine Warfare - MSF/MSC	3	3	3	-	3
Coastal Combatants	12	12	12	-	12
VIETNAM Surface - FF/FFL	7	7	5	8	7
Mine Warfare - MSF	1	1	0	1	1
Amphibious - LST/LSM	9	7	6	7	7
Theater Aircraft - ASW	3	0	0	0	3
Coastal Combatants	20	22	20	-	21

Table 17 (Cont.)

	Couhat	Jane's	IISS	DIA	Assumed No.
YEMEN, PDP. Patrol Combatant	1	1	1	_	1
Amphibious LST (230) LSM (100)	1 4	1 3	1 3	_	1 3
Coastal Combatants	11	8	10	_	10
YUGOSLAVIA Attack Submarines - SS/SSC	7	7	7	7	7
Surface (Theater) Koni - FF	1	1	1	1	1
Mine Warfare - MSC	4	4	4	-	4
Surface - AXT/MM	1	1	-	-	1
Coastal Combatants Active Reserve Maritime Border Brigade	38 - 12	45 - 10	35 1 10	-	42 1 11

^aAll units inoperable.

Table 18
SOVIET NAVY ATLANTIC CAPABILITY

	Units On Station ^a	Units In Transit ^a	Potential Allies ^b
STRATEGIC FORCES Yankee	3	2	
LONG-RANGE MARITIME FORCES SSGN/SSG SSN/SS DDG/FFG LST (260)	1 0-2 0-2 0	3 7-10 0-1 0-1	
POTENTIAL ALLIES			None

^aDerived from Tables 10 and 11.

Table 19 3/2/83
SOVIET NAVY PACIFIC CAPABILITY

	Units on Station ^a	Units In Transit ^a	Potential Allies ^b
STRATEGIC FORCES Yankee	1	1	
LONG-RANGE MARITIME FORCES SSGN/SSG SSN/SS CG DDG/FFG LST (230-300)	0 0 0 0	0-1 2-4 0-1 1-2	
THEATER MARITIME FORCES MCS/MSF	0	0-1	
POTENTIAL ALLIES		• • • • • • • • • • • • • • • • • • •	None

 $^{^{\}mathrm{a}}$ Derived from Tables 10 and 11.

^bDerived from Table 17.

bDerived from Table 17.

Table 20
SOVIET NAVY MEDITERRANEAN CAPABILITY

	Soviet Units Deployed/	D = - 2.3	Potentia		
	Total No.	Rapid	eat		zation eat
	Foreign ^a	Lowb	High c	Low ^d	High ^e
LONG-RANGE MARITIME FORCES SSGN/SSG SSN/SS CG/DDG Strike CG/DDG ASW CG/CL DDG/FFG LST (300)	2-3 8-10 ₅₇ / 1-2 57 / 0-1 5-6 1				
THEATER MARITIME FORCES DD/FF MCS/MSF LSM (100)	4-6 1-3 2				
ALBANIA MSF Coastal Combatants	2 3	0 0	1 1	1	1 2
ALGERIA SS FF Patrol Combatants Reserve MSF ^f LSM (100) Theater Aircraft - MPA Coastal Combatants	2 2 2 2 1 10 18	0 0 0 0 0 0 2 3	1 1 0 0 3 6	1 1 0 0 3 6	1 1 1 1 1 5
LIBYA SS FFG Patrol Combatants MSF MM/AKR LST (240) LSM (180) Coastal Combatants	5 1 7 2 1 2 3 20	1 0 1 0 0 0 0	2 0 2 1 0 1 1 7	2 0 2 1 0 1 1	3 1 4 1 1 1 2
SYRIA FFL MSF/MSC Coastal Combatants	2 3 12	0 0 2	1 1 4	1 1 4	1 2 6

Table 20 (Cont.)

	Soviet Units	Potential Allies			
	Deployed/ Total No.	Rapid Surge Threat		Mobilization Threat	
	Foreigna	Lowb	High ^c	Low ^d	High
YUGOSLAVIA			ŧ		
SS/SSC	7	1	2	2	4
FF	1	0	0	0	1
MSC	4	0	1	1	2
AXT / MM	1	0	0	0	1
Coastal Combatants	42	7	14	14	21
- Reserve ^f	1	0	0	0	0
- Maritime Border		į		}	
Brigade	11	2	4	4	6_

^aSoviets taken from Tables 10 and 11. Potential Allies taken from Table 17.

 b_{16} 2/3% of total.

^c33 1/3% of total.

 $d_{33} 1/3\%$ of total.

 $e_{50\%}$ of total.

 $^{^{}f}0\mbox{\%}$ - 16 2/3% rapid surge and 16 2/3 - 33 1/3% mobilization range.

Table 21
SOVIET NAVY INDIAN OCEAN CAPABILITY

	Soviet Units				
	Deployed/ Total No.			Mobilization Threat	
		Inr		Thr	
	Foreigna	Lowb	High ^C	Low ^d	High e
LONG-RANGE MARITIME FORCES SSGN/SSG SSN/SS CG DDG/FFG LST (230-300) MCS/MSF	0-1 1 1 4 2 1				
THEATER MARITIME FORCES Theater Aircraft - MPA/ASWf	2-4				
ETHIOPIA LSM (100) Coastal Combatants	2 10	0 2	1 3	1	1 5
IRAQ FFT MSF LSM (180) Coastal Combatants	1 2 3 13	0 0 0 2	0 1 1 4	0 1 1 4	1 1 2 7
YEMEN, PDR Patrol Combatants LST (230) LSM (100) Coastal Combatants	1 1 3 10	0 0 0 2	0 0 1 3	0 0 1 3	1 1 2 5

 $^{^{\}rm a}$ Soviets taken from Tables 10 and 11. Potential allies taken from Table 17.

b_{16 2/3%} of total.

c_{33 1/3%} of total.

d_{33 1/3%} of total.

e_{50%} of total.

 $[\]ensuremath{\text{f}}$ Assume MPA providing surveillance for surface units.

Table 22

SOVIET NAVY SOUTH CHINA SEA CAPABILITY

				al Allies		
	Deployed/ Total No.	Rapid Surge Threat		Mobilization Threat		
	Foreign a	Low ^b	High c	Low	High e	
LONG-RANGE MARITIME FORCES						
SSGN/SSG	2 5					
SSN/SS	5					
CG	1					
DDG/FFG	1-3					
Long-Range Aircraft - MPA/ASW	4					
THEATER MARITIME FORCES DD/FF MCS/MSF	1-2 0-1					
VIETNAM FF/FFL	7	1	2	2	4	
MSF	1	0	0	0	1	
LST/LSM	7	1	2	2	4	
Theater Aircraft - ASW	3	0	1	L .	2	
Coastal Combatants	21	3	7	7	11	

 $^{^{\}rm a}$ Soviets taken from Tables 10 and 11. Potential Allies taken from Table 17.

b_{16 2/3%} of total.

 $c_{33} 1/3\%$ of total.

 d_{33} 1/3% of total.

e_{50%} of total.

 $^{^{\}mathbf{f}}_{\mathbf{Assume}}$ MPA providing surveillance to surface units.

Table 23

SOVIET NAVY WEST AFRICA CAPABILITY

	Soviet Units Pote Deployed/ Rapid Surg Total No. Threat		Surge	ial Allies Mobilization Threat		
	Foreigna	Lowb	High ^C	Low	High	
LONG-RANGE MARITIME FORCES DDG/FFG LST (260) Long Range Aircraft - MPA/ASW	1 1 2-4					
ANGOLA LSM Coastal Combatants	4 10	1 2	1 3	1 3	2 5	

 $^{^{\}rm a}{\rm Soviets}$ taken from Tables 10 and 11. Potential Allies taken from Table 17.

 b_{16} 2/3% of total.

^c33 1/3% of total.

 d_{33} 1/3% of total.

 $e_{50\%}$ of total.

Table 24

SOVIET NAVY CARIBBEAN CAPABILITY

	Soviet Units	Potential Allies			
	Deployed/ Total No.	Rapid Surge Threat		Mobilization Threat	
	Foreign	Lowb	High ^C	Low ^d	Highe
Soviet naval deployment sporatic and varied					
CCBA SS FF MSC Coastal Combatants	2 1 2 35	0 0 0 6	1 0 1 12	1 0 1 12	1 1 1 18

^aTaken from Table 17.

 $^{^{}b}$ 16 2/3% of total.

 $^{^{\}rm c}$ 33 1/3% of total.

 $d_{33} 1/3\%$ of total.

e_{50%} of total.

Table 25

SOVIET NAVY MISCELLANEOUS CAPABILITY

		Soviet Units
CASPIAN SEA FLOTILLA	i	
SST	•	4
FF		3
MSF	:	3
Patrol Combatants		10
Coastal Combatants		10
KGB Coastal Combat	ants	5
VARIOUS LOCATIONS		
CVHG/CHG		1
DDG/FFG		3
Unlocated Submarin	es from	
- Northern Fleet	SSBN (Y)	1
	SSGN/SSG	1
	SSN/SS	2
- Pacific Fleet	SSBN (Y)	1
	SSGN/SSG	1
	SSN/SS	2
- Baltic	ss/ssc	1

^aTaken from Tables 10 and 11.

VII. TASK GROUPS

Although it is possible that single unit naval forces will engage each other in combat, it is planned that task forces, groups, or elements will be formed. These groups of naval forces have the advantage of a combined war fighting potential greater than the sum of the individual parts.

For example, convoys offer a degree of protection in conventional war which has long been recognized and when it has been forgotten, has been re-learned at a great price. Similarly, the Germans were very effective in their submarine campaigns with groups of submarines.

It is difficult to know exactly what type groups would be formed for combat but there appears to be no serious question that the Soviet Navy would form into task groups. In the Okean-75 worldwide Soviet Navy exercise, for example, their fleet eventually formed into 12 such groups. 60

Reducing the vast numbers of ships previously identified in Tables is also desirable for certain types of war gaming and modeling. To identify the exact composition of these potential groups, however, requires some knowledge of warfare at sea in general, Soviet navy hardware, deployment patterns, and will require certain assumptions about how one thinks the Soviets will go to war.

The Soviet fleet has been deployed for battle and strike during a number of occasions since the Great Patriotic War. For example, SSBNs are routinely deployed on deterrence patrol and are undoubtably prepared to execute a wartime mission without reinforcement. Similarly, the Indian Ocean presence has been described as a balanced anti-carrier warfare (ACW) group. 61

The actions taken by the Soviet Mediterranean Squadron in the various Arab-Israeli conflicts is an excellent source of information regarding the composition of task groups presumably deployed in a war fighting posture. Similar general concepts can be obtained by studing the numerous U.S. force planning studies which are readily available to the public. 63

Table 26

NAVAL TASK GROUPS

Ballistic Missile Submarines	Individual units
Air Supplemented Anti-Carrier Warfare (ACW) Group	One CVHG or Bomber unit a One CGN/CG/major DDG Two DDG/FFG/DD/FF One SSGN/SSG (if available) Two SSN/SS (three if no SSGN/SSG)
Air Supplemented Anti-Submarine Warfare (ASW) Group	One CVHG/CHG or MPA/ASW unit a One CGN/CG/major DDG Two DDG/FFG/DD/FF Three SSN/SS
ACW Group	Same as above less CVHG/bombers
ASW Group	Same as above less CVGH/CHG/ASW air
Submarine Warfare Group	Three SSGN/SSG/SSN/SS
Surface Action Group	1-2 CVHG/CHG/CGN/CG/major DDG/CL 3-4 DDG/FFG/DD/FF
Marine Amphibious Unit	l CG/CL if available 3-4 DDG/FFG/DD/FF/FFL depending on CG/CL Sufficient Amphibious ships to land 1000 troops
Surface Group	4 DD/FF/FFL
Patrol/Coastal Combat Group	5 Patrol/Coastal Combatants with occasional larger unit or mis-cellaneous ship (AXT)
Minesweeping Group	5 mine warfare ships
Bomber Unit (Long-Range or Theater)	20 Aircraft. If theater, may in- clude fighter-bombers as escorts
MPA/ASW Unit (Long-Range or Theater)	3 Aircraft. May have fighter escorts
Fighter-Bomber Unit (Theater)	20 Aircraft. No escorts required

^aIf in theater, presumed uses theater aircraft. If operating on high seas, presume use long range aircraft.

For the purposes of this study, the following task groups will be assumed as the type which the Soviet navy and allied navies could form, based upon a major effort to seize Europe without a shift in current deployments. They are illustrative and represent one view of the possible types of groups. Alternative groups might be formed if, for example, all forces were to be solely dedicated to a major amphibious effort in distant water operations.

The groups in Table 26 lend themselves to modeling naval force engagements. The nominal number and types of forces are obviously flexible. Incomplete groups would be formed if necessary and surplus units could add to the capability of others. As groups suffered battle damage, they would merge with other groups or change from a type of great capability to one of lesser.

There are certain constraints which have not been included in the units which form task groups. For example, an air supplemented ACW or ASW group or any of the air units would need an appropriate runway to operate from. For the purposes of this study, such fine detail has been not considered but must be by those interested in refined modeling.

Another area which is overlooked for the purposes of these groups is mine laying. Virtually any naval, maritime, or air unit can be adapted to offensive or defensive mine laying. Rather than attempt to identify such units, one can develop rules or capabilities for any or all of the task groups identified for mine laying. One would need to distinguish between the types of mines which can be better placed by certain type units. Such detail can be better accomplished by detailed modeling.

What remains to be done at this point is to reconcile the previous tables of Soviet and potentially allied naval forces in the various world oceans with these war fighting task groups. Any attempt to do so will be speculative and reflect the key assumption outlined earlier. This data base is useful for a NATO Europe war in which no shift of forces occurs from the Pacific Fleet, no exit of the Baltic or Black Sea is anticipated, and forward deployed units remain there.

For the purposes of creating a base case, it will be assumed that the major mission of the Soviet surface fleet in contiguous waters is to protect their ballistic missile submarines. This ASW/ACW mission will be conducted by supporting air and subsurface assets. The base case, therefore, will assume all units which can surge, deploy, or mobilize from the home fleets will be retained in contiguous or theater waters. Alternative cases can be constructed with the primary emphasis being a conventional battle for the Atlantic, etc.

Another basic assumption is that forward deployed units are throwaway assets, designed to extract as high a price as possible from Western fleets if war were to come. If any of these units were to survive engagements with the West, their mission would be to attempt to resupply/reload using merchants or naval auxiliaries or "friendly" ports, and remain in their forward deployment areas to interdict the sea lines of communications (SLOCs). Thus, if a mobilization were to take place, forward deployed units would form into war fighting task groups and not attempt to return to the USSR.

Tables 27-38 represent the author's best estimate of task groups available to the Soviets in the varying parts of the world for the scenario outlined, with an additional rapid surge, or with an initial full mobilization. Where numbers of individual units did not exactly fit into task groups, average or rounded numbers are used. Amphibious units have had the number of troops they can carry identified in parentheses earlier.

Table 27

NORWEGIAN/BARENTS SEA BASELINE

	Rapid Surge Threat	Mobilization Threat
Ballistic Missile Submarines		
Typhoon	0-1	1
Delta	8-12	15-17
Yankee	0-2	5-6
Theater	1-2	3
R&D	1-2	3
Air Supplemented ACW Groups 64/	1-2	2
Air Supplemented ASW Groups 64/	1-2	3-4
Submarine Warfare Groups 65/	2-8	11-15
Long-Range Bomber Units	1/2	3/4
Long-Range MPA/ASW Units	1-2	3
Marine Amphibious Units	1	1.5
Surface Groups 65/	3-5	6-8
Theater Bomber, Fighter-Bomber Units	1/2-1 1/4	2-2 1/2
Theater MPA/ASW Units	2	2-3
Patrol/Coastal Combat Groups	3-4	5-6
Minesweeping Groups	3-5	6-7
KGB Patrol/Coastal Combat Groups	2-3	4

^aDerived from Tables 13 and 26.

Table 28

SEAS OF JAPAN/OKHOTSK BASELINE

	Rapid Surge Threat	Mobilization Threat
Ballistic Missile Submarines		
Delta Yankee	4-6	8-9
Theater	0-2 3-5	4-5 6-7
Air Supplemented ACW Groups 64/	1-2	2
Air Supplemented ASW Groups 64/	1-2	3-4
Submarine Warfare Groups 65/	2-8	10-14
Long-Range Bomber Units	1/2	3/4
Long-Range MPA/ASW Units	1-2	3
Marine Amphibious Units	1/2-1	2
Surface Groups 65/	2-5	5-7
Theater Bomber, Fighter-Bomber Units	1-2	4-4 1/2
Theater MPA/ASW Units	3-5	4
Patrol/Coastal Combat Groups	8-12	15-17
Minesweeping Groups	4-6	8-9
KGB Patrol/Coastal Combat Groups	1-2	3-4
Korean Submarine Warfare Groups	1-2	2-4
Korean Patrol/Coastal Combat Groups	2-4	4-7
		<u> </u>

 $^{^{\}mathbf{a}}$ Derived from Tables 14 and 26.

Table 29

BLACK SEA BASELINE

	Rapid Surge Threat	Mobilization Threat
Air Supplemented ACW Group 66/	0-1	1
Air Supplemented ASW Group 66/	0	0-1
ACW Group	0	0-1
ASW Group	0-1	1-2
Submarine Warfare Groups 65/	2-3	3-4
Long-Range Bomber Units 66/	1/2	3/4
Marine Amphibious Units	1	2
Surface Groups 65/	0-3	4
Theater Bombers, Fighter-Bomber Units 66/	1-1 3/4	2 1/4-2 1/2
Theater MPA/ASW Units	1-2	3
Patrol/Coastal Combat Groups	1-3	5-6
Minesweeping Groups	3-6	8-9
KGB Patrol/Coastal Combat Groups	1-2	3
NSWTO Submarine Warfare Groups	0-1	1
NSWTO Patrol/Coastal Combat Groups 67/	2-3	3-5
NSWTO Minesweeping Groups	0-1	1
NSWTO Border Guard Coastal Combat Groups	0-1	1

^aDerived from Tables 15 and 26.

Table 30

BALTIC SEA BASELINE^a

	Rapid Surge Theat	Mobilization Threat
Ballistic Missile Submarines Theater	2-3	4-5
Air Supplemented ASW Groups	1-2	2
Submarine Warfare Groups	3-6	7-10
Surface Action Groups	1	1-2
Long-Range Bomber Units	1/2	3/4
Marine Amphibious Units	1-2	2-2 3/4
Surface Groups 68/	1-3	5
Theater Bombers, Fighter-Bomber Units	2-3	4
Theater MPA/ASW Units	0	0-1
Patrol/Coastal Combat Groups	7-11	14-16
Minesweeping Groups	6-9	12-13
KGB Patrol/Coastal Combat Groups	2-3	4
NSWTO Marine Amphibious Units	3/4-1 1/2	1 1/2-3
NSWTO Theater Fighter-Bomber Units	1/2	3/4-1
NSWTO Patrol/Coastal Combat Groups 67/	2-4	4-7
NSWTO Minesweeping Groups	2-4	4-6
NSWTO Border Guard Patrol/Coastal Combat Groups	1-3	3-4
Finland Patrol/Coastal Combat Groups 69/ (including all forces)	0-1	1-2

 $^{^{\}mathbf{a}}$ Derived from Tables 16 and 26.

Table 31

ATLANTIC BASELINE

	Nominal In Area Threat
Ballistic Missile Submarines Yankee	5
Submarine Warfare Groups	1-4
Marine Amphibious Units	0-1/4

^aDerived from Tables 18 and 26.

Table 32

PACIFIC BASELINE

	Nominal In Area Threat
Ballistic Missile Submarines Yankee	2
Submarine Warfare Groups	0-2
Surface Action Groups	0-1/4
Marine Amphibious Units	0-1/4
Minesweeping Groups	0-1/5

^aDerived from Tables 19 and 26.

Table 33

MEDITERRANEAN BASELINE

	Nominal	Potential Allies <u>70</u> /	
	Soviet	Rapid Surge	Mobilization
	Threat	Threat	Threat
ACW Groups 71/	1-2	-	-
ASW Groups 71/	1	-	-
Submarine Warfare Groups	2	-	-
Marine Amphibious Unit	1/2	_	_
Surface Group	0-1	_	_
Minesweeping Group	1/5-3/5	-	-
Libyian Submarine Warfare Groups	-	0	1
Libyian Patrol/Coastal Combat Groups	-	1-2	2-3
Yugoslavian Submarine Warfare Groups	-	0	1
Yugoslavian Patrol/Coastal Combat Groups (includes all forces)	-	2-3	3-6

 $^{^{}a}$ Derived from Tables 20 and 26.

Table 34

INDIAN OCEAN BASELINE

	Nominal In Area Threat72/
ACW Groups	1
Marine Amphibious Units	1/2
Minesweeping Group	1/5

^aDerived from Tables 21 and 26.

Table 35
SOUTH CHINA SEA BASELINE^a

	Nominal	Potential Allies	
	Soviet Threat	Rapid Surge Threat	Mobilization Threat
ACW Group	1	_	_
Submarine Warfare Group	1	-	-
Surface Group	0-1	-	
Minesweeping Group	0-1/5	-	-
Vietnamese Surface Group	-	0	1
Vietnamese Patrol/Coastal Combat Groups	_	1	2

^aDerived from Tables 22 and 26.

Table 36
WESTERN AFRICA BASELINE

	Nominal In Area Threat 71/
Marine Amphibious Unit	1/4
Long-Range MPA/ASW Unit	1/2-1

aDerived from Tables 23 and 26.

Table 37

CARIBBEAN BASELINE a

	Nominal	Potential Allies	
	Soviet Threat	Rapid Surge Threat	Mobilization Threat
Soviets	Varies	_	-
Cuban Patrol Coastal 67/	-	1-2	2-4

^aDerived from Tables 24 and 26.

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MISCELLANEOUS BASELINE

Ballistic Missile Submarines Yankee	2	Unlocated from each major fleet		
Surface Action Group	1	Location varies		
Submarine Warfare Group	2	One per major fleet		

^aDerived from Tables 25 and 26.

Although the baseline developed in Tables 27-38 is scenario dependent, it represents a methodology of aggregating units for the support of a war which can be applied to other scenarios. Manipulation by swinging forces from the Pacific to NATO Europe is one such manipulation as is surging forces out of the Baltic or Black Sea.

The baseline developed herein is not a final product which can be used to assess the overall capability of the Soviet navy nor the directions it has taken in recent years. For example, a dynamic assessment of trends in types of naval forces procured, naval presence in distant

water areas would supplement the conclusions one might draw from utilization of this data base.

However one choses to manipulate the aggregation of forces, Tables 13-16 and 18-25 represent raw numbers of units from which aggregation may be attempted. As such, they represent the author's best estimate of Soviet navy and potentially allied units which have the capability to wage war at sea.

NOTES

- 1. Paul H. Nitze, Chairman, Leonard Sullivan, Jr., Director and Rapporteur. (Boulder, CO.: Westview Press, 1979). The study is an Atlantic Council Policy Study.
- 2. This number is assumed since IISS appeared to have the most detailed information on reserve cruisers.
- 3. Couhat provides numbers of troops which may be carried aboard amphibious ships.
- 4. Only IISS broke down bombers into general types. IISS total long-range and theater bombers is 390 which compares well to average of other four sources (388). Assumed detailed IISS data was valid and used it for standardization.
- 5. IISS broke down ASW aircraft into specific types. Totals similarly compared well to other sources. Used IISS data for standardization. DIA listed fixed wing and helo ASW forces together making it impossible to determine fleet breakdown.
- 6. Assumed this number because IISS discounts existence of one Kilo and Couhat lists four additional Q as SST.
- 7. DIA lists modified Kilden as DD. All other sources list as DDG.
- 8. This number assumed since other sources with higher numbers admit manning by KGB of some unspecified number of ships. Assume Jane's is correct.
- 9. Includes fleet and coastal minesweepers. DIA total included units in inshore and boat category, hence excluded.
- 10. Assume zero since only one source supports existence of these units.
- 11. Assume Couhat has poor data since Jane's and IISS appear to agree.
- 12. Assumed in this fleet since built in this area and still undergoing sea trials/development of weapons systems.
- 13. No source breaks down types of SS in each fleet. It would seem logical that Foxtrot and Tango long range diesel powered submarines, like nuclear powered, are all located in the two main fleets with deep water access. Percentage distribution is assumed to be the same as SSNs.
- 14. DIA recognizes fewer number of this class, hence assume DIA distribution is incorrect.

15. Aircraft capable of long range ASW missions might be assigned to the Black Sea or Baltic Fleets but this seems highly unlikely. None are listed as present in "Soviet Military Power - Part 1: Navy and Air Force," Jane's Defence Review, Vol. 3, No. 1, 1982. This report, however, states that Backfire's are deployed equally amongst the four fleets. In the absence of better information, this source is the basis for long range aircraft distribution. The article does not list an author nor provides a primary citation for its source. Also used Jane's Defence Review for theater bomber deployments. In order to cross check, used Couhat and IISS which list total long range and theater bombers together in each fleet. Since all sources used varying totals, a comparison by percentage is appropriate.

	Northern	Pacific	Black	Baltic
Couhat	18	32	26	24
IISS	20	31	23	26
Jane's Def Rev	25	31	19	25

- 16. No data available on Hotel deployment, hence assume percentages the same as for all SSBNs.
- 17. It has been reported widely that there are six Golf II SSBs in the Baltic. Jane's says that the remainder are in the Pacific. Thus the remaining Golf R&D modifications must be the three SSBs reported by Jane's in the Northern Fleet.
- 18. Since no single source broke out long range vs. theater SS, as was stated in note 13, all long range are assumed to be in the two deep water fleets. Jane's provides data on all SS in each fleet. It is assumed that all units in the Baltic and Black Seas are theater. Once having accounted for these, the number of long range SS are subtracted from the total SS in the Northern and Pacific Fleets to obtain the amount of theater SS.
- 19. No single source gives a satisfactory accounting for patrol combatant fleet forces. Jane's attempts to but the total of 160 in all the fleets does not agree with the totals 105 of those classes in the photographic section. IISS only lists minor combatants which includes KGB forces and mine warfare units. DIA uses the term patrol combatants but includes KGB forces. The tables used in this study for payy patrol combatants therefore must reflect percentages of both forces. The exact breakdown is unknown.
- 20. Both sources of data on mine warfare fleet disposition do not distinguish between theater units and lesser mine warfare inshore craft and boats. It was assumed that a balance between ships, craft, and boats would exist in all fleets.

- 21. Jane's refers to Jane's Defence Review (Footnote 15). Major difference between Couhat and Jane's appears to be number of fighter-bombers in Baltic or Black Sea. DIA combines all long-range, theater, and fighter-bombers. Assuming the long-range and theater bomber numbers are valid, the DIA totals make it appear that there are more fighter bombers in the Baltic than in the Black Sea. Hence, used Couhat with Jane's percentages which favor Baltic.
- 22. Couhat data is all fixed wing ASW less assumed Bear F aircraft. Jane's is <u>Jane's Defence Review</u>. Major difference appears to be Baltic and Pacific Fleets. Assumed Couhat is correct since helicopters would be able to do ASW in Baltic easier than in Pacific. Couhat stressed Pacific.
- 23. All R&D SSBN/SSBs assumed to be in Northern Fleet where major shipyard is and test firings are normally reported.
- 24. No source breaks down these forces by location. Assume distribution is equal between fleets, giving more weight to Baltic and Black Sea Fleets since it appears Northern and Pacific Fleets have bulk of active pavy forces.
- 25. Assume all Yankess are undergoing conversion in Northern Fleet shipyards. Assume none deployable or usable in a war at present time.
- 26. All Whiskey SSG assumed to be for training as reported by Couhat. IISS says half are active. If training is primary role, assume 2 in primary training fleet (Baltic) and one in Black Sea.
- 27. All carriers, cruisers, destroyers, and frigates (CVHG, CHG, CGN, CG, CL, DDG, DD, FFG, FF, FFL). It was impossible to cross check minor combatants since most sources mixed in coastal combatants and KGB forces.
- 28. Jane's refers to <u>Jane's Defence Review</u>. Major aircraft are all aircraft listed in this study. Variations due to assumptions noted earlier.
- Commander Richard T. Ackley, USN (Ret.), "The Wartime Role of Soviet SSBNs," <u>U.S. Naval Institute Proceedings</u>, Vol. 104, No. 6, June 1978, p. 36.
- 30. The distance from the Kola Peninsula to the vicinity of Norfolk, VA is around 4500 n mi. If a 15 knot speed of advance is maintained, this would require 25 days total transit and allow around 45 days on station. Given three Yankees on station, two additional units would be in transit. Distance speeds and total days at sea taken from Michael MccGwire, "The Economic Costs of Forward Deployment," in Soviet Naval Developments: Capability and Context, A Praeger Special Studies in International Politics and Government, ed. Michael MccGwire (New York: Praeger Publishers for the Centre for Foreign Policy Studies, Dalhousie University, 1973), pp. 233-234 (hereafter cited as Sov Nav Dev).

- 31. Robert G. Weinland, "The State and Future of the Soviet Navy in the North Atlantic," in <u>Soviet Naval Influence: Domestic and Foreign Dimensions</u>, A Praeger Special Studies, Praeger Scientific, ed. Michael MccGwire and John McDonnell (New York: Praeger Publishers for the Centre for Foreign Policy Studies, Dalhousie University, 1977), p. 411 (hereafter cited as <u>SNI</u>).
- 32. MccGwire, "Forward Deployment," <u>Sov Nav Dev</u>, p. 235 cites the Soviets sending groups of submarines together to the Mediterranean. Based upon this assumption and the distances, speeds, and days at sea, it would appear that there would be one group en route, one on forward deployment, and one returning. Since later sources credit the Soviets with using transports to ferry crews to the Mediterranean, it is assumed that this occurs at least partially for submarine crews. Additionally, submarine tenders routinely deploy to the Mediterranean making MccGwire's assumption of a 60 day patrol unlikely. Hence the number of submarines in transit from Kola to the Mediterranean is assumed to be half of what MccGwire's calculations would yield.
- 33. The distances between the Northern or Baltic Fleet home ports to West Africa are roughly similar to MccGwire's distances from the Pacific Fleet to Aden. In such a case, using MccGwire's data, transit would be approximately one month. Assuming a six month deployment, the number of ships in transit would be less than one of each type per year.
- 34. The distance between Petropavlovsk and the forward deployment area probably is similar to Vladivostok to the South China Sea. Using MccGwire's data, the number of Yankees in transit would therefore be around one.
- 35. The distances and speeds from Vladivostok to Ceylon according to MccGwire would result in a pattern of 3 transiting submarines at all times to support 2 on deployment. Since only the attack submarines are always deployed, it was assumed there would be one cruise missile submarine. An alternate possibility is that Indian Ocean submarines draw from assets from the South China Sea Station. If this is true, then the number of subs in this category would be zero.
- 36. It is virtually impossible to calculate the number of ships in transit to the South China Sea without knowledge of their exact base rights in Vietnam. If we assumed a sixty day deployment, the numbers in transit would be significantly higher than if these ships remained in Vietnam for six months or a year. Further complicating this is the possibility that some units might stage into the Indian Ocean. For the purposes of this study, six month deployments were assumed resulting in only minimal average transit numbers.

- 37. U.S. Department of the Navy, Office of the Chief of Naval Operations, Understanding Soviet Naval Developments, 4th Ed., NAVSO P-3560 (Rev. 1/81) (Washington, D.C.: Government Printing Office, 1981), p. 16 (hereafter cited as USND).
- Naval Diplomacy, Pergamon Policy Studies No. 37 (on the Soviet Union and Eastern Europe), ed. Bradford Dismukes and James M. McConnell (New York: Pergamon Press in cooperation with the Center for Naval Analysis, 1979), p. 60 (hereafter cited as Sov Nav Dip).
- 39. Commander Bruce W. Watson, USN, Red Navy at Sea: Soviet Naval Operations on the High Seas, 1956-1980, Westview Special Studies on the Soviet Union and Eastern Europe (Boulder, CO.: Westview Press, 1982), p. 148.
- 40. Navy, USND, p. 20.
- 41. Newsweek, December 6, 1982, p. 62. This compares favorably with an earlier total of four SSGN/SSG's in 1972 reported by Robert P. Berman, "Soviet Naval Strength and Deployment," in Sov Nav Dev, p. 129. See also "Power Game: The Seas Around Us," Far Eastern Economic Review/Asia Yearbook 1983, p. 22 on "China Bolsters Naval Forces in Island Oil Area," by Michael Parks, Los Angeles Times, February 20, 1983, Part 1, p. 8.
- 42. Berman, pp. 132-133.
- 43. Navy, USND, p. 21 and Parks, Los Angeles Times, February 23, 1983.
- 44. Berman, pp. 132-133.
- 45. Navy, USND, p. 19.
- 46. Watson, p. 199. There have been at least 21 deployments to the Caribbean. The Caribbean patrol, however, is sporatic. A more recent patrol has recently been reported (Los Angeles Times, January 11, 1983, Part I, p. 12 and February 16, 1983, Part 1, p. 2) which consisted of a guided missile cruiser, a guided missile frigate, and a diesel powered attack submarine.
- 47. Navy, USND, p. 19.
- 48. Although the Caspian Sea Flotilla is an independent command, the the ships assigned to it are generally listed in the totals for the Black Sea Fleet. Hence, they need to be subtracted, but no clear data exists on the number and type of units which are in this Flotilla. In the Great Patriotic War, the Flotilla was composed of "minesweepers, patrol boats, and special purpose vessels converted from small ships." See V. I. Achkasov and N. B. Pavlovich,

Soviet Naval Operations in the Great Patriotic War 1941-1945, trans. U.S. Naval Intelligence Command (Moscow: Military Publishing House, 1973; U.S. Ed., Annapolis: Naval Institute Press, 1981), p. 345. When Gorshkow first became Commander-in-Chief of the Soviet navy, it was reported that older submarines were sent to the Caspian Sea for training duties. See Commander M. G. Saunders, RN, The Soviet Navy (New York: Praeger Publishers, Books that Matter, 1958), p. 17. This was echoed by Siegfried Breyer, Guide to the Soviet Navy, trans. M. W. Henley (Annapolis: Naval Institute Press, 1970), p. 6. By 1977, frigates were reported in the Flotilla. See Siegfield Breyer and Norman Polmar, Guide to the Soviet Navy, 2nd Ed. (Annapolis: Naval Institute Press, 1977), p. 219.

- 49. At least two T-43 MSF can be identified in Morskoy Sbornik, No. 6, 1980, p. 19 and No. 6, 1976, p. 19.
- 50. One should never assume that all submarines are located.
- 51. It is assumed that one CVHG/CHG is forward deployed at all times. The location would vary. For example, see Watson, pp. 64-68 where the cruise of a CVHG (Minsk), two Kara class CGs, and the Ivan Rogov LPD is documented. This task group transited the Mediterranean, South Atlantic, Indian Ocean, South China Sea, and Pacific in a five month period.
- 52. For specifics, refer to Table 10. In this table, units are aggregated and not identified as specific. For example, numbers of SSBNs are those in deployment in the Atlantic and those transiting to or from station. Location does not mean localized specifically.
- 53. Caribbean Patrol composition varies and is not consistent. If it is currently deployed, assets need to be subtracted from the Northern or Baltic Fleets.
- 54. An MCS could be considered a long range unit. These generally operate as a support/theater vessel.
- 55. Could be less depending upon Caribbean deployment.
- 56. Miscellaneous submarines are deleted at this point since they will have at best, a minimal impact on war fighting. Yankee SSNs are unable to get underway until conversion is completed. Remaining categories of training, communications, radar, salvage, or research subs should not have a primary war fighting mission. Some of the older training subs may not be able to get underway. Also deleted here are PGR radar pickets.
- 57. Breakdown on types of CGs on deployment to forward areas is not available. A 50/50 split between surface strike and ASW is assumed with a bias in favor of surface strike in the event of an odd number.

- 58. One CVGH/CHG deployed. Assume CHG since CVGH still undergoing sea trials.
- 59. Unusable non-operational units such as Albanian/Whiskey submarines not tabulated in final totals. Where one individual source appeared to have more accurate information (units in reserve, lost in recent wars, etc.), used this as authoritative data.
- 60. Watson, p. 30-31.
- 61. James M. McConnell and Anne Kelly Calhoun, "The December 1971 Indo-Pakistani Crisis," in Sov Nav Dip, P. 179. McConnell and Calhoun claim such a balanced ACW group is one CG, a DDG, an SSG, and two SSs. In an earlier version of this paper, only one SS was identified. See their "Superpower Naval Diplomacy in the Indo-Pakistan Crisis," in Sov Nav Dev, p. 444, a reprint of Center for Naval Analysis (CNA) Professional Paper No. 108, February 1973).
- 62. The standard ACW group appears to be a CG, 1-2 DDG, a SSGN/SSG, and 2 SSN/SS. See Stephen S. Roberts, "Superpower Naval Crisis Management in the Mediterranean," Center for Naval Analysis Professional Paper No. 317, August 1981, p. 12. Aircraft with air launched cruise missiles would also participate if available. See Petersen, pp. 49-50. See also Abram N. Shulsky, "The Jordanian Crisis of September 1970," in Sov Nav Dip, p. 173.
- 63. For example, see the Congressional Budget Office's <u>Building a 600-Ship Navy: Costs</u>, <u>Timing</u>, and <u>Alternative Approaches</u>, a CBO Study, March 1982, pp. 9-16. From the data on these pages, it is possible to aggregate combat forces into one of five major types of task groups; Carrier Battle Groups, Surface Action Groups, Amphibious Forces, Underway Replenishment Groups, and Convoys.
- 64. Limited only by number of CGN/CG/Major DDGs available. Aircraft assumed available from CVGH/CHG or land. When DDG/FFG assets run out, supplement with DD/FF.
- 65. All remaining assets once units dedicated to ACW/ASW and Amphibious tasks deleted.
- 66. Did not form more Air Supplemented ACW/ASW groups than there are CVHG/CHG assets to support since it appears illogical to do so in a closed sea. These air ACW/ASW groups represent capability to exit into larger seas/deeper waters and conduct sustained operations with own air support. Different groups could be formed by matching land aircraft to ACW/ASW groups. It is assumed land air groups will attempt to assist the Mediterranean squadron.
- 67. May include submarines.
- 68. Less to be formed if German and Polish Amphibious Units activated. These ships would be used to escort these allied forces.

- 69. Finland included since if USSR is attacked, Soviets can probably count on Finland defending Finnish waters and denying access to them by West.
- 70. Albania and Syria deleted since their forces lack any significant offensive capability. They would be expected to defend their own territorial waters if naval operations were attempted in them. Algeria deleted since there appears to be a lack of political desire to conduct offensive operations in support of the USSR.
- 71. These could quickly convert to Air Supplemented units if Soviet aircraft were able to exit their bases in the Black Sea area and be permitted to assist operations in the Mediterranean. Alternately, Soviet aircraft operating out of North African airfields or Soviet pilots flying aircraft belonging to North African nations might also upgrade these units. For the purposes of this study, neither case was assumed.
- 72. All potential allies deleted since all lack significant capability. Modest air capability in Indian Ocean useful for surveillance only.
- 73. Delete Caspian Sea Flotilla since in area where cannot impact on Western navies.

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